JUNE 2016

intercom

THE MAGAZINE OF THE SOCIETY FOR TECHNICAL COMMUNICATION

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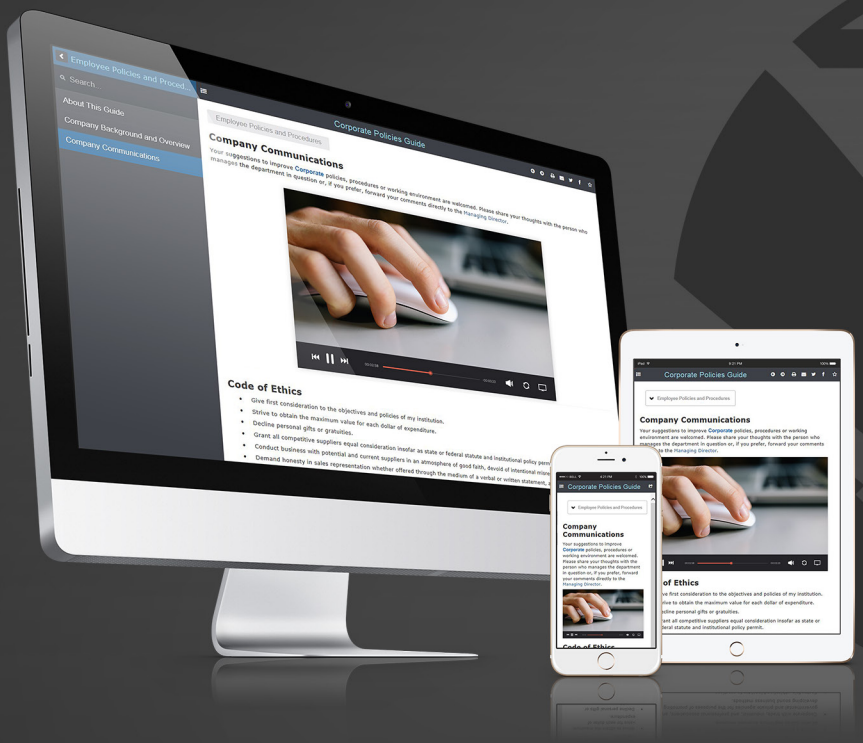

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Intercom, the magazine of the Society for Technical Communication, is published to provide practical examples and applications of technical communication that will promote its readers' professional development.

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Address Changes: membership@stc.org
Intercom Editorial: intercom@stc.org

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Intercom (ISSN 0164-6206) is published 10 times a year (monthly, except for August and December) by the Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803, a nonprofit educational organization, as a service to its membership. Membership in STC includes a subscription to **Intercom**. Periodicals postage paid at Fairfax, VA, and additional offices.
Postmaster Send address changes to **Intercom**, Attn: Membership, c/o Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803.

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WINNER 2015 APEX AWARDS FOR PUBLICATION EXCELLENCE

A Note from the Editor

GUEST-EDITED ISSUES OF *Intercom* are always outstanding and the June issue is no exception. It was a pleasure to work with co-managers of the STC Instructional Design and Learning SIG on this issue. Robert Hershenow is an independent technical communicator living in Berkeley, California, who began working in instructional design by chance, many years ago. Today he also records and edits audio, plays music, and shows people how to create lively presentations. Mellissa Ruryk is a senior technical communicator with over 30 years' experience in writing for technology, financial, oil and gas, and engineering clients. She is the past president of STC's Canada West Coast Chapter. Robert and Mellissa are both STC Senior Members.

Robert and Mellissa have acquired five feature articles that provide suggestions and strategies for technical communicators who may be interested in transitioning into instructional design. The articles range from analyzing skill sets, assessing familiarity, and comparing the fields to hands-on advice on working with customers, designing model assembly instructions, and m-learning with smartphone. Thank you to Robert and Mellissa and all the authors in this issue for providing excellent content on instructional design and learning (IDL).

Also in this issue, columnist Scott Abel provides a Meet the Change Agents column with an interview of thought leader Dr. Nitish Singh. And columnists Kit Brown-Hoekstra and Cindy Currie provide career advice in Ask a TechComm Manager. The June Society Pages include information on Summit Playback, on Society-level offices for the 2016–2017 year, and announcements of the recipients for several awards—the President's Award, the Community of the Year, and the International Summit Awards.

Are you interested in collaborating with me as a guest editor on a future issue of *Intercom*? Email me your thoughts and ideas at *intercom@stc.org*.

Liz Pohland

—Liz Pohland
liz.pohland@stc.org

A Note from the Guest Editors

WHETHER YOU WORK in the field of instructional design and learning (IDL), have ever considered it, or even just wondered about it, you are likely to find something of interest in this issue of *Intercom*. Five authors—all STC members and seasoned ID practitioners—offer insights on how to break into the field, how to do good work once you get there, and how to push on into new territory.

A frequent topic of interest in the Instructional Design and Learning SIG, especially from new or prospective members, has been how to make the jump from a career in technical writing to instructional design. How are the fields similar and different? Which skills and knowledge are transferable? Have others been successful in making the leap? Preeti Mathur (e-learning consultant, instructional designer, past IDL SIG co-manager) provides answers in her article "Transitioning from Technical Writing to Instructional Design."

If you have pondered these questions yourself, you may have wondered how ready you are to cross that bridge. To help you determine your readiness, Saul Carliner (educator, workplace learning and communications expert, STC Fellow) offers an enlightening hands-on exercise called "Interactive Introduction to Instructional Design for Professional Communicators." Besides being fun and not taking very long, this activity may deliver a few surprises!

Technical communicators, both new and experienced, know that job one is audience analysis. But despite being such a crucial step in the design process, it is too often overlooked and/or under-respected. Cheryl Lockett Zubak (learning experiences developer, consultant, STC Senior Member) shows us how to do it right (and why we need to) in her article "How Can Instructional Designers Learn about Customers?" Her tips also make the sometimes-daunting process easier to implement, by showing how we can make it fit into the real world of work.

David Dick (technical writer, author, usability expert, STC Fellow) provides real-world examples of how using proven design techniques helps produce effective process documentation in "For Best Results: Designing Plastic Model Assembly Instructions." David's background in user experience offers insight into making your own IDL processes even more effective.

Finally, Karen Rempel (author, consultant, past STC Canada West Coast Chapter president) ushers us into the new frontier of mobile e-learning with "Instructional Design for Smartphones: Learning Pills for Smombies." In this article, Karen describes how we can leverage our fascination with mobile technology by applying instructional design principles to m-Learning for the smartphone. Karen says, "m-learning is uniquely suited to workplace learners. It allows people to use their phones to do short trainings anywhere, anytime."

We hope you enjoy our IDL issue of *Intercom*. It has been a great pleasure to serve *Intercom* and the STC community as guest editors; we have enjoyed working with old friends and making new ones, and have learned a few things! We hope you get as much enjoyment out of reading these articles as we have from preparing them. If you'd like to explore instructional design further, we invite you to log onto the IDL SIG website (*www.stcidlsig.org*) where you can take advantage of our many resources. You can reach us by email at *manager@stcidlsig.org*. We look forward to hearing from you!

—Robert Hershenow and Mellissa Ruryk
Co-managers, Instructional Design and Learning SIG

School's out for the summer, but STC Online Courses are up and running!

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TechComm101
Leah Guren, Owner/Operator, Cow TC
14 June-2 August 2016, Tuesdays
11:00 AM-12:30 PM EDT (GMT-4)

Owning Your Content: Using the Power of FrameMaker to Get Back to Writing
Matt Sullivan, Founder of Tech Comm Tools
30 June-11 August 2016, Thursdays
11:30 AM-12:30 PM EDT (GMT-4)

Technical Editing Foundations
Li-At Rathbun/Ruttenberg, Technical Editor, Yardi Systems
16 August-20 September 2016, Tuesdays
10:00-11:00 AM EDT (GMT-4)

TechComm 201
Leah Guren, Owner/Operator, Cow TC
31 August-5 October 2016, Wednesdays
11:00 AM-12:30 PM EDT (GMT-4)

Instructional Design for Technical Communicators
Saul Carliner, Associate Professor of Educational Technology, Concordia University
8-29 September 2016, Thursdays
Noon-1:30 PM EDT (GMT-4)

Technical Communication Manager
Saul Carliner, Associate Professor of Educational Technology, Concordia University
6 October-10 November 2016, Thursdays
Noon-1:30 PM EST (GMT-5)

Writing for Localization: Hands-On Workshop and Best Practices
Lisa Pietrangeli, Managing Partner, 36Software
12 October-16 November 2016, Wednesdays
11:00 AM-12:30 PM EST (GMT-5)

Transitioning from

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Technical Writing to Instructional Design

By PREETI MATHUR |
STC Associate Fellow

IS IT EASY for technical writers to transition into instructional design? Are our acquired skills transferable and helpful in developing instructional and learning materials?

Given that the Instructional Design and Learning SIG is STC's second-largest special interest group, we can assume that many technical writers are also involved in creating instructional materials or are considering that field as a viable career. Moving into instructional design seems like a natural progression, especially since both fields are rapidly changing. Technical writing now involves more than text-based documentation, with technical writers developing online help and how-to videos. Instructional design has also evolved from classroom training to include eLearning, mobile learning, and other instructional materials, such as online help and job aids, that come from the technical writing domain.

Based on my own experience working in both these fields and with a little help from friends and colleagues who are doing the same, this article:

- Identifies technical writing skills that are transferable,
- Describes the differences between the two disciplines and the gaps that must be filled, and
- Provides ideas on how to break into the field of instructional design.

The focus of this article is primarily on technical writers developing technical and systems training rather than soft skills or behavioral changes.

Which technical writing skills transfer to ID?

Let's first look at skills we may have acquired as technical writers which transfer well into the instructional design field:

- **Writing skills.** Although many of us have come into technical writing from diverse backgrounds, one characteristic we all share is that we are strong writers. As technical writers, we write not only well but also simply and clearly, steering away from noun strings and passive sentences that can impede legibility or learning. We understand the importance of using consistent language and how to reach out to and engage a diverse audience.
- **Organizational, presentation, and formatting skills**. We are experts at simplifying and presenting complex information. We know how to chunk it down, so it is easy for learners to navigate and learn new material. We know how to provide relevant examples and how to format these materials—from white papers to reference guides to online help to job aids. These skills come in handy whether we are creating a manual, an eLearning module, or a participant guide for classroom training.

- **Audience analysis skills.** These skills translate well, especially if you are involved with creating audience and task matrices for your courses.
- **Interviewing, facilitating, and listening skills**. As technical writers, we know who to approach, and how to get information from even the most difficult subject matter experts (SMEs). We know how to prepare for interviews and how to conduct review meetings and build consensus when there are conflicting opinions. Many of us routinely schedule conference calls and conduct interviews and meetings remotely, a skill set that is important whether you are creating technical manuals or training modules. Since so much of our time involves interacting with SMEs, we have also become good listeners as well as excellent note takers, using shorthand or recording devices to catch and translate rapid explanations. All these skills work equally well when designing instructional materials.
- **Ability to learn.** As technical writers we are quick to grasp and understand new information. By having to learn new material constantly and be user advocates, we know how to walk in a learner's shoes.
- **Research skills.** Part of our ability to learn quickly also involves our ability to conduct research and come up to speed with a subject. In the pre-Google era, I would spend hours in the library looking for background information to help me understand a subject, so I could ask my SMEs the right questions.
- **Aptitude for tools and new technology**. We have learned and mastered many tools of our trade, such as FrameMaker, RoboHelp, and Flare. Many of us know DITA and the ins and outs of content management systems (CMSs). Could it be that difficult for us to learn yet another tool such as Captivate or Storyline or get familiar with SCORM and other learning management systems (LMSs)?
- **Creative skills.** Many of us have found creative ways to illustrate complex ideas (or shared an idea with someone who could help us do that). Whether a graphic or an innovative way to lay out a job aid, we can apply the same techniques to creating instructional materials. Some of us have also picked up video and audio skills which are very helpful when creating eLearning.
- **Team building skills.** Contrary to what we often hear about technical writers, we are not loners but work well in teams. Working effectively in teams is beneficial as you transition into instructional design—only the roles and types of people you may interact with would change. While you will still deal with SMEs, you may now have other IDs, sponsors, stakeholders, learning management specialists, and change management experts on your team.
- **Product or system expertise.** Many technical writers who have become domain or product experts are asked to train others. If you are one of these, you might find yourself gradually getting more involved in developing training or straddling both worlds.

What are the differences? What do you need to learn?

When transitioning into instructional design from technical writing, there are some key differences you need to keep in mind. You may have to learn new techniques and skills to help you become a good instructional designer. Here is an overview of a few of these differences:

- **Inform vs. teach.** Both the technical writing and instructional design fields involve learning to some extent. Technical writing mainly produces information intended to inform and instruct users in performing a task or process, or to acquaint them with a product. Instructional design, on the other hand, is meant to teach a new task, skill, or concept, or to change certain behaviors.
- **Extent of information covered.** Technical documents generally provide complete information on a product or system, albeit spread out in different formats and types of documents, while instructional materials identify and teach only what is essential and based on key learning points. This was a big difference for me; I had to learn to curtail myself from providing too much information that would lead to learner fatigue.
- **Audience analysis, methodologies, and learning theories.** As a technical writer, I knew how to analyze and define my audience and present information in a logical way. But with instructional design, I had to understand how people learn so they can design training around these principles. For example, you will need to understand and use methodologies such as ADDIE and the principles of Bloom's taxonomy. This is perhaps one area that was most unfamiliar to me and about which I continue to learn.
- **Measurable objectives, evaluation, and assessments.** While you may start your technical writing projects with a detailed outline of topics and how they will be covered, instructional materials always start with objectives and key learning points that you define as part of the development process. Courses are designed and built around these objectives, and always include evaluations in the form of "check your understanding" questions or formal assessments to ensure the learning objectives have been met.
- **Scenarios, exercises, and interactivity.** To clarify and inform, technical documents may include examples or sample code. But to ensure learning, instructional designers must include real-world scenarios and exercises that provide hands-on practice. For example, when teaching about a new system, classroom training would involve setting up a training environment with realistic data that has been staged, so all participants can complete a set of exercises from start to finish. The same training, if deployed as eLearning, would include simulations in the form of demos and exercises. This interactivity is essential because it engages learners and promotes learning, and it is the reason gamification

has become so popular. Another ID concept that emulates the adage "teach me to fish and I eat for a lifetime" involves providing learners with the means to continue learning after the training is over. In several of my systems training projects, I have first created step-by step instructions (a technical writing skill) for learners to use during training. This way they are aware of this resource and continue to use it when they get back to their desks.

- **Documents, deliverables, tools, and technology**. Just as technical writers deal with technical specifications, reference guides, user guides, and online help, instructional designers have their own set of documents and deliverables. Many ID projects, during their early phases, involve creating audience-task matrices and designed documents or blueprints. Classroom training requires creating guides for participants and instructors. (Early on, I learned to create a single document by including instructor notes in hidden text that could be printed out separately.) If eLearning projects are not using rapid prototyping methodology, you may be required to create storyboards, another new concept I had to learn. Creating eLearning also requires learning new tools. While there are several tools available, Captivate and Articulate Storyline seem to be the two most in demand. Besides these, IDs also have to learn about learning management systems, which are used to deploy eLearning modules. Another concept that was new to me was conducting train-the-trainer (TTT) sessions to teach SMEs how to train and use the instructional materials.
- **Graphics, design, and multimedia skills.** These skills are becoming increasingly important as eLearning and other instructional materials such as videos are being developed and delivered via the Web. Also, very few companies these days maintain dedicated staff of graphic artists or multimedia specialists, so eLearning developers are expected to have these skills as well.

How do you break into the instructional design field?

Here are some suggestions and strategies for transitioning into instructional design.

Look for opportunities and build a portfolio. If you are an employee and have expertise with a product or system, look for opportunities to offer training. When I was an employee, I volunteered to teach a class on the Internet and the World Wide Web (yes, I am dating myself) for the company's brown bag sessions and did informal writing workshops for engineers.

I know colleagues who created eLearning modules for volunteer organizations to help build their portfolios. I also honed my eLearning skills by doing some pro-bono work: a module explaining a high-tech concept to show to potential funding agencies.

Join relevant associations, attend conferences and webinars, read books and blogs, and enroll in courses. I joined the IDL SIG and regularly attend webinars and follow discussions. I attend ID-related sessions regularly at the STC Summit (the IDL SIG provides information about these sessions every year in its newsletter, on its website, and at the Summit) and always make a point to buy books at the Summit bookstore (by Ruth Clark, Michael Allen, and Nancy Duarte, to name just a few).

Take advantage of the training and evaluation program, a free service offered to STC's IDL SIG members in which an expert evaluates a project and gives valuable feedback for improving your work. STC's Mentor Board is another way to hook up with an expert and get guidance on making this transition.

Other groups, such as the Association for Talent Development (ATD; *www.td.org/*), the International Society for Performance Improvement (ISPI; *www.ispi.org/*), and The eLearningGuild (*www.elearningguild.com/*), offer free or low-cost webinars and hold conferences such as DevLearn and Learning Solutions, which are focused only on ID-related topics.

There are also several LinkedIn discussion groups you can subscribe to as well as blogs from experts such as Cathy Moore and Tom Kuhlman and from vendors such as Adobe and Articulate. Both Captivate and Storyline eLearning tools offer free 30-day trial downloads. You can take advantage of this to get familiar with these tools. Also, Lynda.com and IconLogic offer reasonably priced classes on these tools and other topics of interest to instructional designers.

If you have the time and resources, enroll in a program that offers a degree or certificate in instructional design. The IDL SIG website (*www.stcidlsig.org/education/*) provides an extensive list of these programs.

Acknowledgements: *Special thanks to Kim Kahat, Deanne Levander, Jayme Sagan, and Amy Winkler for sharing their experiences with transitioning into the IDL field. Thanks also to Jane Smith, Jackie Damrau, Linda Urban, Carol Widstrand, Lorie Bergmark, Alan Carpenter, and Phil Deering for their help and advice when I was transitioning into IDL.*

PREETI MATHUR *is an independent consultant who works on technical writing and instructional design projects in a variety of fields, including medical, apparel, and manufacturing. She is an Associate Fellow and a member of the Twin Cities Chapter of STC.*

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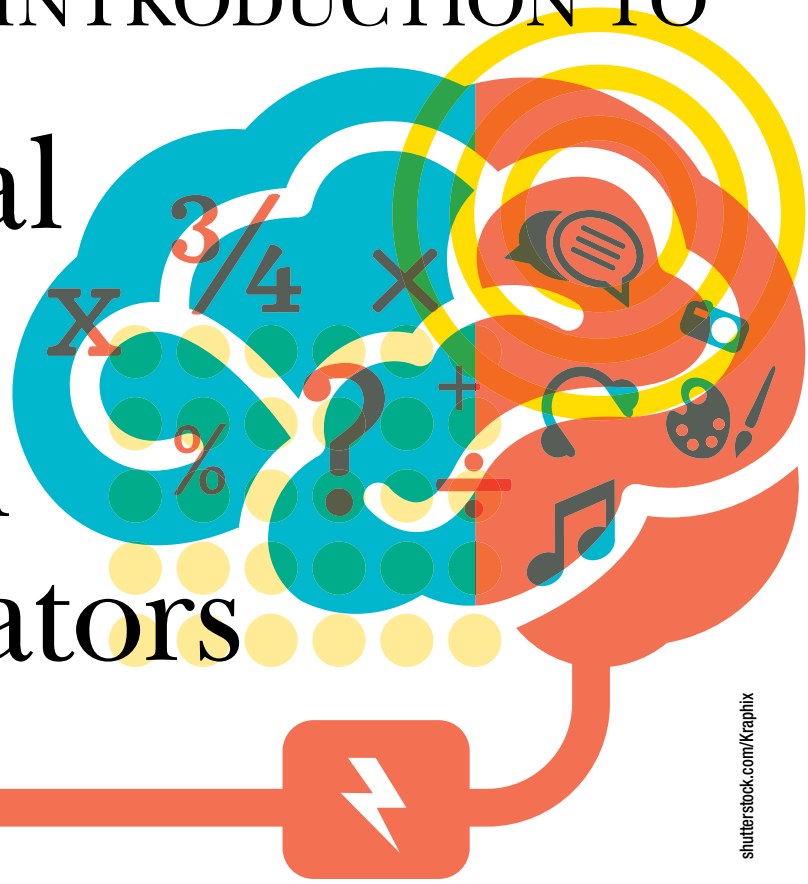
How to Become an Instructional Designer (*http://blog.cathy-moore.com/how-to-become-an-instructional-designer/*)

AN INTERACTIVE INTRODUCTION TO

Instructional Design for Professional Communicators



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By SAUL CARLINER | *STC Fellow*

BECAUSE MOST TECHNICAL COMMUNICATORS have participated in instructional programs—whether as students in degree programs, participants in training and continuing education programs, or both—we may feel that we have an intuitive understanding of instructional design, even if we might not be able to precisely state what it is or how it works. This introduction to instructional design tries to leverage that intuitive understanding through an interactive format.

First, this article asks you some questions about instructional design. Then, it identifies the correct responses to each question. It closes by suggesting where you start this journey of learning about instructional design, based on your responses to the questions.

Part 1. Answer these questions.

Answer the following questions to assess your intuitive knowledge of instructional design.

1. What is instructional design?
   a. The act of determining how to develop a skill.
   b. The process for preparing instructional programs.
   c. The act of providing information to users through formats like tutorials and guided tours rather than traditional help.

2. Which of the following words do not belong in an instructional objective?
   a. Demonstrate
   b. Explain
   c. Match
   d. Recognize
   e. Understand

3. What is an instructional strategy?
   a. The plan for developing skills through the program.
   b. The plan for presenting content in an instructional program.
   c. The plan for using interactivity in the instructional program.

4. Should you use games in instruction?
   a. Yes
   b. No
   c. Maybe

5. When should you write assessment questions for an instructional program?
   a. Before identifying instructional objectives for a course.
   b. Immediately after identifying instructional objectives for a course.
   c. After developing the instructional material.

6. What is the primary reason that learners fail to apply skills learned in an instructional program in their work (or everyday life, if that's the goal)?
   a. They crammed for the test and forgot everything afterward.
   b. They did not pay attention to the program.
   c. The environment in which they would use the skills does not support them.
   d. They resisted the new techniques taught by the program.

7. How were instructional design and technical communication originally related to one another?
   a. Both shared a professional organization.
   b. Many of the core theories for both fields were formed in the same institution.
   c. Many technical communicators also work as instructional designers.

Part 2. Consider your responses.

Now compare your responses with the correct responses to each question.

1. What is instructional design?

Correct response: a. The act of determining how to develop a skill.

Explanation: A skill can be a physical skill in which someone physically performs a task (called a psychomotor skill) but can also refer to an intellectual skill (such as evaluating options) or an affective skill (related to attitude about a situation).

More specifically, instructional design involves a series of decisions including ones about:

- Which skill to develop
- Which knowledge, tasks, and attitudes need to be imparted when developing that skill (a single skill involves all three)
- Which general strategy should be used to teach the skill (such as mastery learning, discovery learning, or case-based learning)
- Sequencing of the events when presenting the material (what's presented first, what's presented second, and so forth)
- Which exercises and activities to use to practice skills
- A strategy for assessing mastery of the skill (such as a test or demonstration)
- Strategies for summarizing learning at the end of an instructional event and to promote use of the new skills outside of the classroom

Instructional design also involves being able to explain the rationale for each of these choices.

Instructional design contrasts with the similarly named—but differently focused—instructional systems design (ISD), which refers to the comprehensive process for preparing instructional programs. The best-known and most-generic form of ISD is the Analysis-Design-Development-Implementation-Evaluation (ADDIE) approach, which describes the key activities that occur in this process and the suggested order in which they occur.

The development of skills is the characteristic that distinguishes instructional design from technical communication. Technical communication guides users in performing skills, but without the expectation that users will be able to independently perform that skill. Instruction develops skills with the expectation that learners will eventually perform them independently.

Presenting information as tutorials and guided tours does not on its own guarantee that these materials are instructional. What makes them instructional is that they develop skills and include opportunities to practice and assess the skill. A guided tour merely familiarizes readers with material. Calling material a tutorial does not, on its own, ensure the development of skills.

2. Which of the following words do not belong in an instructional objective?

Correct answer: e. Understand

Explanation: Instructional objectives state the goals that a training program must achieve and the extent to which learners must master those skills. The central part of an objective is a behavior, which states what learners should be able to do after completing the program.

The behavior in an instructional objective must be expressed in observable and measurable terms so that instructors can later assess the extent to which learners mastered those objectives.

Physical skills, such as "move an object using approaches intended to minimize back injury," can be easily observed. Cognitive (thinking) skills are a bit more difficult to express observably and measurably. People instinctively want to state cognitive skills as "know" or "understand," but neither knowing nor understanding is observable or measurable.

What can be observed are the uses of knowing and understanding: "comprehend," "memorize," "describe, "explain," and "evaluate." This, in turn, also suggests ways to better focus the instructional material, because the strategy for teaching someone to merely comprehend a

topic is significantly different than teaching someone to evaluate different options related to that particular skill.

3. What is an instructional strategy?

Correct response: a. The plan for developing skills through the program.

Explanation: More specifically, an instructional strategy refers to the general approaches for presenting the material to learners and practicing the emerging skills. An instructional strategy suggests how to introduce the material to learners, how to present the material, how to reinforce and practice the skills taught, and how to conclude the instructional sequence.

Several instructional strategies exist. Each motivates, involves, and supports learners in a unique way. Some strategies involve more interactivity; others convey content more efficiently. Some are inexpensive to develop but involve little interaction; others require more resources but involve more creativity. Some strategies work more easily in certain media than others.

4. Should you use games in instruction?

Correct response: c. Maybe

Explanation: Although some advocates for the use of games in courses suggest that instructional designers design all of their programs around games, research on the effectiveness of games as an instructional tool suggests a bit more cautious approach.

For games to be effective, they must first relate directly to the instruction. Otherwise, the game risks becoming a distraction. For example, assume that a two-day course introduces a general trivia activity into the last half of the first afternoon to inject energy into the classroom. The trivia questions, which examine the performance of National Hockey League teams, has nothing to do with the subject of the program. Learners might like the activity, but when it ends, the instructor essentially tells the learners, "OK, now the fun is over and it's time to start learning."

Assuming the game is relevant, it can engage learners. One study found that learners in a game-based version of a course had a higher satisfaction level and higher performance on a post-class quiz than learners in a version of the same course that did not have a game.

But the games must have a novelty factor. Some research on the repeated use of the same game for instructional purposes found that, over time, learners mastered the game and it failed to support additional learning.

In addition, learners often need a certain amount of foundational knowledge to successfully complete some instructional games. A more traditional approach might suit the teaching of the foundational knowledge.

In other words, games—like many instructional techniques—can have a positive impact on learning. But like all other instructional techniques, games, too, have limits to their effectiveness.

5. When should you write assessment questions?

Correct response: b. Immediately after identifying instructional objectives for a course.

Explanation: Instructional design advocates for criterion-referenced instruction, in which all instruction emerges from the objectives. The objectives are also known as the criteria, hence the term.

As noted above, objectives identify the skills worth developing. Assessments measure the extent to which learners mastered the objectives.

Assessments can take many forms. The best known is graded tests, but assessments can also take the form of informal quizzes or self-assessments.

In criterion-referenced instruction, all test questions emerge directly from the objectives. In fact, the action verb in the objective almost always becomes part of the assessment question. For example, if the objective says "Match," then the test question is a matching question.

Instructional design experts advise writing assessment questions immediately after writing the objectives. As instructional design legend (and chief promoter of instructional objectives) Robert Mager noted, if the objectives indicate the direction in which instruction should go, then the assessment questions indicate whether the learners have arrived at the learning destination.

With an idea of both the destination of instruction and the means of assessing whether learners have arrived there, instructional designers can design and develop instructional materials that guide learners on that journey.

6. What is the primary reason that learners fail to apply skills learned in an instructional program in their work (or everyday life, if that's the goal)?

Correct response: d. The environment in which they would use the skills does not support them.

Explanation: The only way the new skills developed through an instructional program can have a meaningful impact on their work and lives is when learners actually apply them.

The process by which learners integrate skills developed in an instructional program into their work is called

transfer of training. Transfer happens outside of the learning environment.

Learners encounter several types of barriers that prevent them from applying what they learned. In some cases, learners lack the resources to apply the skills. Consider learners who take a program on using a soon-to-be-installed telephone system, but the system is not installed for months after the program. Learners cannot use their new skills, and thus they lose them.

Consider, too, learners who take a program only to have their supervisor or co-worker tell them not to use the new skills because it will disrupt an existing work routine.

Although instructional designers have little—if any—influence over the work environments of their learners, they can prepare learners for these environments and "equip " learners in the program to overcome these obstacles should they arise later.

7. How were instructional design and technical communication originally related to one another?

Correct responses: a and b. Both shared a professional organization, and many of the core theories for both fields were formed within the same institution.

Explanation: (I did not mean to trick you with two correct answers.)

Technical communication and instructional design have a long-standing relationship that goes back to the mid-twentieth century. The first professional organizations for technical communicators were break-off groups from the American Society for Training Directors (which became the American Society for Training and Development and, more recently, the Association for Talent Development). That explains the professional relationship.

But the two groups share an intellectual relationship as well. On the one hand, researchers in many countries and in many institutions have made significant contributions to technical communication and instructional design. On the other hand, some of the early research in both fields was performed at the same institution: the Washington, DC-based American Institutes for Research (AIR). The work in the two fields was conducted by different teams at different points in time. The instructional design work was conducted between the 1940s and 1960s in support of American military efforts at the time.

Military technology was increasingly sophisticated, the amount of training needed to operate the equipment grew, and the time needed to develop and train personnel could cause a lag in the time between the technology being available and its use in conflict. The research was intended to find ways to design effective instructional programs that could be developed and delivered in the least possible amount of time.

Learn More about Instructional Design

A primer on the instructional design process: Carliner, S. *Training Design Basics,* 2d ed. Alexandria, VA: ATD Press, 2015.

Learner-centered approach to instructional design: Dirksen, J. *Design for How People Learn,* 2d ed. New Riders, 2016.

Designing programs with Powerpoint: Bozarth, J. *Better than Bullet Points: Creating Engaging E-Learning with Powerpoint.* San Francisco CA: Pfeiffer, 2013.

Random ideas: Shank, P. *Online Learning Idea Books 1* and *2.* San Francisco, CA: Pfeiffer.

Research underlying e-learning design: Clark, R. C., & Mayer, R. E. *E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning,* 2d ed. San Francisco, CA: Pfeiffer, 2011.

In-depth exploration: Reigeluth, C., ed. *Instructional-design Theories and Models: A New Paradigm of Instructional Theory, Volume II.* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

In the 1970s, following moves in various U.S. states and in the United Kingdom in which the public demanded that consumer agreements be written in plain language, then-U.S. President Jimmy Carter issued an executive order requiring that most U.S. federal materials be written in plain language. A different team at the American Institutes for Research prepared the guidelines for document design, guidelines that still influence technical communication today.

Part 3. How familiar are you with instructional design?

If you answered at least six of the seven questions correctly, you have a good familiarity with instructional design.

If you answered four or five questions correctly, you have an emerging familiarity with instructional design.

If you answered three or fewer questions correctly, instructional design offers a learning opportunity for you.

To begin (or continue) your learning about instructional design after reading this special issue, check out the resources in the sidebar.

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How Can Instructional Designers Learn about Customers?

By CHERI LOCKETT ZUBAK | *STC Associate Fellow*

MY FIRST "REAL JOB" out of college as an editor in a publishing firm was a jack-of-all-trades role. In other words, I did any task the editor-in-chief assigned to me, including getting on the phone with customers who needed help using our products. Later, when course development became one of my responsibilities, I found myself in an ideal situation for instructional design: I understood the customer. After those many phone calls, I knew what problems customers ran into and how drastically these problems could interfere with their work. I had spoken with customers about business situations, so I knew which scenarios were meaningful. And after helping customers discover better ways to approach and resolve their problems, I had developed and tested a set of best practices. I could directly apply all of these experiences to instructional design.

Since moving into mainstream technical communication as a writer and instructional designer, I have learned a great deal about designing learning experiences. Yet I often have to maneuver through organizations to establish the fluent understanding of customers that I had in that first job.

These days, a key aspect of my work is to conduct customer research not only to support my learning projects, but also to help the people I work with understand customers better. In this article, I'd like to share some techniques I practice to learn about customers and how I apply what I learn to my work.

Spoiler alert: It's not always easy to get firsthand information about customers. But persist and it will happen.

What is learner analysis? And what's this talk about customers?

Learner analysis is the process of collecting and analyzing customer data to inform the design of learning experiences that improve job performance. Learner analysis helps instructional designers to:

- Identify and gather relevant data about target populations who engage in the learning experience
- Understand the impact of a knowledge and skills gap for these target populations
- Develop meaningful problems, tasks, and scenarios
- Make defensible design decisions instead of assumptions
- Gain empathy for customers

If this process really involves *learners*, then why am I talking about *customers*? In the workplace, learners are customers. Whether internal (they work for your organization) or external (they buy products or services from your organization), when they engage in the learning you design, they have a business purpose to achieve. Although you are supporting them as learners, it's important to keep in mind that you have a business relationship; they expect business outcomes as a result of what they learn. For me, thinking of them as customers (yes, and learners, too) has helped me to keep in mind that I am accountable to them in this business relationship.

Do these tasks before you begin learner analysis

It's a good idea to get grounded in the project before starting learner analysis. You should:

- *Get an overview of the project from stakeholders.* Have a conversation to understand scope, customer situation, and expectations about what you will deliver. This meeting is your first opportunity to find out about customers.
- *Take a good look at customer organizations.* Before you look too deeply into specific learner populations, spend some time researching the organizations where they work. Review the strategies, goals, business environments, and industry trends of these organizations to better understand the context of the problems that affect your customers.
- *Document the gap.* The *performance gap* is the difference between the current level of job performance and the expected level of job performance. Your learning experience will be targeted at reducing or eliminating this gap. You will continue to refine your understanding of this gap as you develop the learner analysis and learn more about why the gap occurs.

Apply adult learning science as stable characteristics

Some characteristics that you apply to learner analysis are about people in general—how they think and remember, what motivates (or demotivates) them, and how they learn. You can think of these as stable characteristics because they apply generally to adult learners. For example, learning science tells us that adults want to learn from experience (which includes making mistakes) in problem-based situations. We also know that while most learners prefer materials with visuals, graphics are most beneficial to novice learners.

The learning and development profession also has its share of myths—that is, beliefs we might have that are not supported by science. An example is learning styles. According to this popular theory, people learn best when instruction matches their preferred style: auditory, visual, or kinesthetic. However, this theory has consistently been disproven.

As an instructional designer, it is crucial to understand learning science so you can develop instruction that supports adult learners. The Suggested Reading list for this article contains resources that I have found helpful for understanding how people learn.

Gather general information about customer groups

Next step: Begin to gather information about the customer groups who will engage in the learning experiences you plan to design. During this process, you begin to create the *learner profile* for each target population. This profile describes:

- Relevant characteristics about the customers that affect the instructional design, often categorized by role, experience level, or job tasks
- Specific details from your research that support your understanding of these customers
- Initial ideas about instructional design implications

Avoid the "I just know" stance—that is, the idea that you have picked up sufficient information about the customer just by going about normal business activity. That's probably true to some extent, but until you do the work of investigating the performance problem, you won't be able to distinguish myth from reality. Think of it this way: If you went before a tough manager who wanted to know where your design decisions came from, could you defend them? Would "I just know" be good enough?

Start broadly by reviewing job descriptions for customer roles, current LinkedIn group discussions, and articles or user forums on professional sites. Look for themes that tie your products and services to concerns of the customer. Look beyond demographics such as age, gender, and educational background. This kind of information is typically too general to inform design decisions. Instead, find out what you can about customer pain points so you begin to understand why the subject of your learning project matters to the customer.

Talk to customers and customer-facing SMEs

Talking to external customers should be your goal, so get ready to network and pull in favors. When it comes to direct access to customers, who you know might be the most important condition. Or, if it's not who you know, it's who your manager knows. And onward up the organizational chart!

Interviewing and observing external customers can be tough because many organizations restrict access to customers. The key is to find out who in the organization is having customer conversations and either support or shadow them. Groups to partner with include customer experience, customer support, market research, consulting, sales, and user experience. Look for opportunities to listen in on customer interviews or support calls, or join the user experience staff in field research. Come up with a few targeted questions around issues you haven't been able to

figure out through secondary research, and request that the interviewers ask these questions. At times, you might have to glean what you need from other people's questions, but you would be surprised how often issues around job roles and tasks come up in these conversations. Given the opportunity, customers always talk about pain points in their jobs.

Sometimes you need to reach customers indirectly. For example, get in the habit of observing the user forums on your corporate website where you can engage in social listening. Be sure to talk to customer-facing subject matter experts who understand the problems or tasks around the performance problem.

Focus conversations on these factors:

- *Customer work environment*—Is anything happening in the work environment that might interfere with the ability to perform the tasks or solve problems? Are customers well supported in their work environment? Do they have appropriate information, such as documentation or job aids?

  With internal customers, address these issues before investing in any kind of training development. Otherwise, the problem will persist despite your best efforts at instructional design. For external customers, keep in mind that your product or service is part of their work environment. If the product has usability issues, even the best instruction is only going to help so much. Which aspects of the product are complex or difficult to use? Even if the product doesn't improve, you can focus instruction on these features.

- *Individual factors*—What motivates people in this role? Do people in this job tend to have the capacity to learn the tasks they need to perform? Are they motivated to improve job performance? What kinds of knowledge and skills do they have?

  Knowledge and skills are often the focus of instructional design, but knowing something about these other factors can help you to develop an appropriate design by influencing decisions such as module length, pacing, or feedback. As part of this research, keep track of tasks. Learner analysis blends into task analysis: you won't really have a complete picture of the learner until you understand the tasks they need to perform. I typically track tasks in two columns: What does the customer do well? And what do they have problems with? Use this information to improve the gap analysis that you developed before starting on learner analysis.

For a model to help you with these aspects of customer research, check out Gilbert's Behavior Engineering Model or one of its variations, such as Six Boxes. Gilbert's model provides some starter questions for researching environmental and individual issues that can inform the learner profile.

Develop learner profiles to understand the customer

Now that you have a good handle on your customer, you can wrap up that learner profile. At minimum, the profile should describe characteristics of:

Learner Analysis: Product Manager/Technical Lead Presentations of Quarterly Progress Reports

Learner characteristics	Findings	Data source	Implications for instruction
Typical learners, broad characteristics			
Consistency and frequency of task: effect of inconsistent, on-the-job application	Typical learner motivation and persistence fluctuates when developing quarterly presentations due to factors such as: • Other commitments (82.5%) • Unclear about the message (75.3%) • Frustration with using features of PowerPoint (52.6%) • Unclear about the task (32.4) • Problems pulling data together (13.5%) Nevertheless, most typical learners spend more than 10 hours each quarter preparing these presentations.	Client Interview (Jim Adams, VP of Product Development) Client Interview (Gina Johannsen, Chief Technical Office) Instrument: Leadership feedback on technical leader performance on quarterly report presentations Instrument: Product Manager/Technical Lead Survey results	Effect of fluctuating commitment: The training program does not have a lasting effect on those who do not consistently apply their new skills on the job. Therefore, the ID team will investigate ongoing support, such as: • Job aids as reminders for important tasks • Branded templates for quarterly reports • Short mLearnings that target specific problem areas • Ongoing email newsletter with tips that target common errors in tools, writing, and design • Peer coaching program
Conflicting commitments introduce an environmental distraction	See above findings, which also apply here. One of the reasons this is happening is that product service releases are typically scheduled around the same time as the quarterly progress report meetings.	Client Interview (Sue O'Hara, Product Manager) Client Interview (Bob Lorenz, Product Manager) Instrument: Leadership feedback on technical leader performance on quarterly report presentations Instrument: Product Manager/Technical Lead Su	No instructional implications. We recommend moving the quarterly progress reports until at least two weeks after quarter close when product rollouts have completed. This way, Product Managers and technical leads will be less distracted by releases and will have more complete information because the releases have rolled out.

Figure 1. This clip from a learner profile for a typical learner identifies individual (row 1) and environmental (row 2) factors

- *Exemplary performers*—customers who excel at the problem or task. Think of these learners as the top performers in an organization who set the standard for knowledge and skills. These people are critical to an organization's success because they produce results the organization highly values, such as greater sales volume, completed and successful projects, innovative ideas that spur new product growth, and more satisfied customers. By studying how these people do their jobs, you can identify how they produce results—critical information for your learning project.
- *Typical performers*—customers with average abilities at the problem or task. What is the difference between the job performance of typical and exemplary performers? The learning experience you are designing should improve the knowledge and skills of typical performers, and should especially target areas they find difficult to understand or complex to do.

Often, instructional designers align the typical performer and exemplary performer as the extreme ends of the performance gap. As you design instruction, your goal is to support typical performers in achieving the job performance of exemplary performers—that is, close the performance gap.

Develop personas to relate to and communicate about the customer

After you have developed the learner profile, transform these profiles into *performance personas* to communicate the customer learning experience to your team or stakeholders. For the purposes of instructional design, personas are data-driven (but fictional) design models that illustrate the behaviors and motivations of a group of customers who share a performance problem. For example, the persona in Figure 2 provides key details about the attitudes and behaviors of a typical learner who is struggling to develop meaningful presentations for quarterly status meetings.

In my experience, personas are beneficial for helping you to work through specific design issues and relate to customer problems. They bring life to the often dry analyses in your learner profiles. Personas are also excellent tools for communicating customer behaviors as they relate to design decisions.

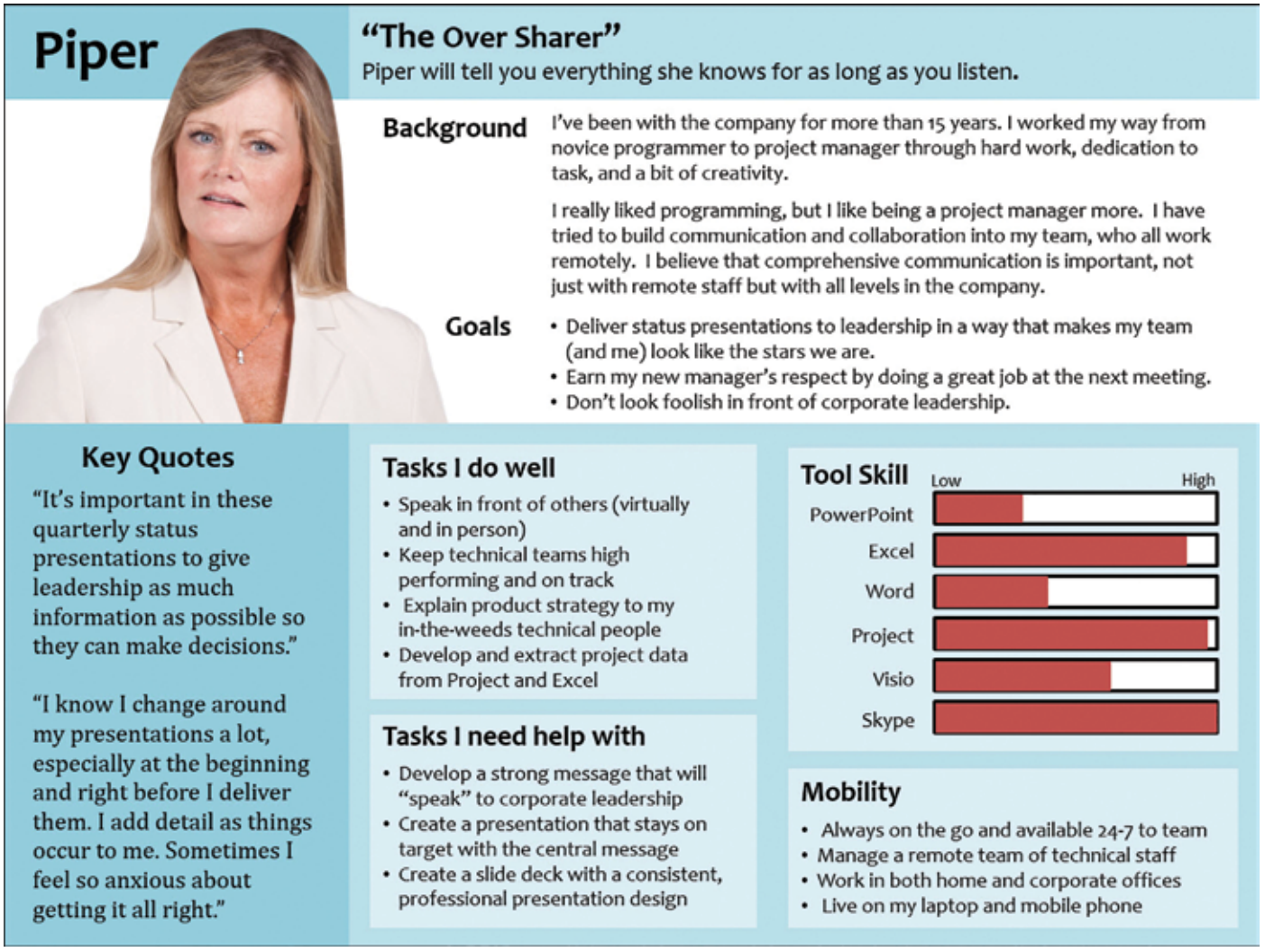
Piper
"The Over Sharer"
Piper will tell you everything she knows for as long as you listen.
Background
I've been with the company for more than 15 years. I worked my way from novice programmer to project manager through hard work, dedication to task, and a bit of creativity.
I really liked programming, but I like being a project manager more. I have tried to build communication and collaboration into my team, who all work remotely. I believe that comprehensive communication is important, not just with remote staff but with all levels in the company.
Goals
• Deliver status presentations to leadership in a way that makes my team (and me) look like the stars we are.
• Earn my new manager's respect by doing a great job at the next meeting.
• Don't look foolish in front of corporate leadership.
Key Quotes
"It's important in these quarterly status presentations to give leadership as much information as possible so they can make decisions."
"I know I change around my presentations a lot, especially at the beginning and right before I deliver them. I add detail as things occur to me. Sometimes I feel so anxious about getting it all right."
Tasks I do well
• Speak in front of others (virtually and in person)
• Keep technical teams high performing and on track
• Explain product strategy to my in-the-weeds technical people
• Develop and extract project data from Project and Excel
Tasks I need help with
• Develop a strong message that will "speak" to corporate leadership
• Create a presentation that stays on target with the central message
• Create a slide deck with a consistent, professional presentation design
Tool Skill
Low
High
PowerPoint
Excel
Word
Project
Visio
Skype
Mobility
• Always on the go and available 24-7 to team
• Manage a remote team of technical staff
• Work in both home and corporate offices
• Live on my laptop and mobile phone

Figure 2. Example of a performance persona

Your organization's user experience or marketing groups might already have developed personas that can become a starting point for your work.

Test and refine your learner profiles and personas

Why didn't this process end with the last step? Aren't the learner profiles complete? In my experience, you need to test the learner profiles and personas before putting them into practice. Until you apply these design tools to a realistic problem, you don't know whether they are ready for use. The good news is that the way you test learner profiles contributes to the instructional design.

For example, I often test profiles and personas by developing scenarios (or variations such as user stories and customer journey maps). Think of scenarios as a "pre-flight" method for understanding the learner well enough to push into the design phase. One of my favorite techniques is to develop a crisis scenario—that is, a situation in which the customer is going through a crisis that involves the tasks they are having problems with. I prefer these situations because they help me to work through many issues that can matter in instructional design—from the customer's emotional state to the need to perform a task both accurately and quickly. (For a discussion and example of a crisis scenario, check out Eric Meyer's video in the Suggested Reading.)

After you've done these tests, you are ready for your next steps: refine the performance gap based on the learner analysis and then do task analysis.

That accountability thing

Are you thinking: "Hey, I just create software demos and tutorials. Features, functions—that's what our customers want to know about! Do I really need to do all of this research? Can't I just read the specs and play with the builds?"

You're right: Customers of software products want to know about features and functions. But they also want to know why they should care about these features, and how those functions directly relate to the work they do every day. They want to know the best practices that experts use to work faster and better. Your smartly crafted eLearnings will be more meaningful to customers and have greater business impact if you design them to target the customers' performance problems. Remember: these are customers, not just users of your software application. They expect business outcomes.

So do the work. While you don't want to make learner analysis a job in itself, gather as much information as you need to make defensible design decisions and to design a learning experience that results in positive outcome for the customer. Paying attention to customer research not only results in learning experiences that truly matter to your customers but also can open new avenues for your professional growth. But that's a tale for another article.

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For Best Results: Designing Plastic Model Assembly Instructions

By DAVID DICK | *STC Fellow*

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MODEL ASSEMBLY INSTRUCTIONS ALWAYS begin with the words, "For best results: read the instructions thoroughly." This is important advice because some builders can be so anxious to assemble the model that they forget to read instructions thoroughly and start gluing pieces together only to discover mistakes later. I know this to be true, because I have been one of those people.

In my leisure time, I build plastic models of airplanes, spaceships, and cars. My satisfaction comes from completing the models with minimal mistakes. Experienced model builders can make any model appear realistic by using exact colors and markings, and applying a weathered appearance. With continued practice, I hope to achieve their level of craftsmanship.

Importance of Assembly Instructions

To ensure accurate assembly, model kits include assembly instructions. Assembly instructions are an important resource for planning the building of the model to ensure you have the necessary tools and materials, and understand the stages of assembly. Depending on the complexity of the model (i.e., the number of parts), assembly instructions can be moderately detailed or highly detailed. Model manufacturers conduct usability tests to evaluate the accuracy of the instructions, how well the drawings and diagrams communicate assembly of parts, and appropriateness of the layout and design. Information design is critical to ensure the assembly instructions foster an efficient and effective understanding to successfully build a model.

How People Interpret Instructions

The design of model assembly instructions is based on research of people's conceptual models of assembly and effective methods to visually communicate assembly information. Typically, when you are building something, you look at the picture on the box; you look at the parts and make assumptions about how everything fits together. Your assumptions are proven correct if, after assembly, the item resembles the picture on the box. Most people usually only read the assembly instructions when the item does not match the picture. Model builders do not make assumptions—they follow the instructions because they are motivated to build the model correctly.

Common Characteristics

The following are the characteristics common to all model assembly instructions:

The Introduction

All model assembly instructions have an introduction that includes a short history of the item, a list of recommended tools and materials, a parts list and paint guide, a list of pictographs used in the instructions, and customer service contact information.

Plain Language

Because models have a global market, model assembly instructions are written in two or more languages that might include English, French, German, or Japanese. To ensure seamless translation, model assembly instructions are written in plain language and active voice, sentences are clear and concise, and steps are described in as few words as reasonable, with drawings and diagrams to illustrate the sequence of assembly.

Pictographs such as those shown in Figure 1 are used to avoid repeating instructions such as "cement together," "remove and throw away," and "do not cement." A table of pictographs is placed in the introduction to the assembly instructions because they are important to know before assembling the model.

Figure 1. Model Assembly Pictographs

Skills of the Audience

Model assembly instructions are not written for a specific skill level; instead, the suggested skill level required for the complexity of the model is printed on the packaging.

- Skill Level 1 kits are molded in color, so no painting is needed to have a good-looking model when finished.
- Skill Level 2 kits are molded in a neutral color such as white to make them easier to paint, as most traditional modelers prefer to do.
- Skill Level 3 kits have more complex assemblies and multiple color painting schemes.

The model builder is not likely to read a description about the skill level; instead, the model builder is likely to see a graphic as shown in Figure 2.

Figure 2. Skill Level Graphic

Order of Assembly

An important principle of designing model assembly instructions is to present information concisely. Each step of assembly must show how to attach one significant part at a time and all parts in each step of assembly must be clearly visible and easily recognizable. Model assembly instructions use two types of diagrams: Exploded View Diagrams and Structure Diagrams.

Exploded View Diagrams show the order of assembly of parts and how they fit together, with the parts closest to the center assembled first. Figure 3 shows the assembly of an engine, which is also the first step of the assembly process. Callouts identify part numbers, color codes that correspond to paint colors for specific parts, and where to affix decals.

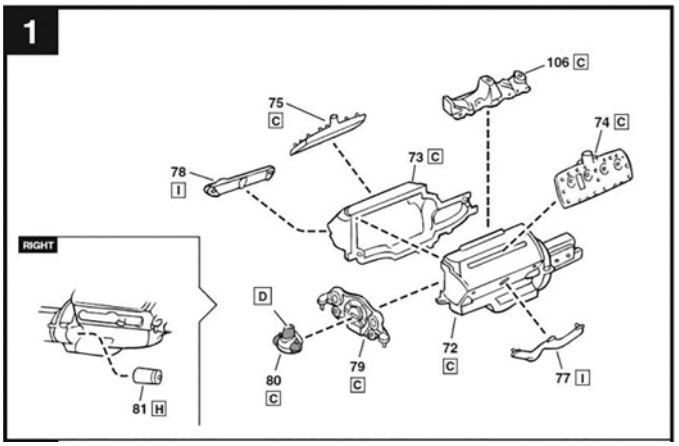

Figure 3. Exploded View Drawing (Revell)

Structural Diagrams show all new parts attached in the current step, along with all the parts seen in earlier steps in their final assembled positions. Figure 4 shows the assembled engine from Step 1 (in the center of the diagram) and where to attach additional parts. The symbol in the upper left corner indicates where to affix a decal.

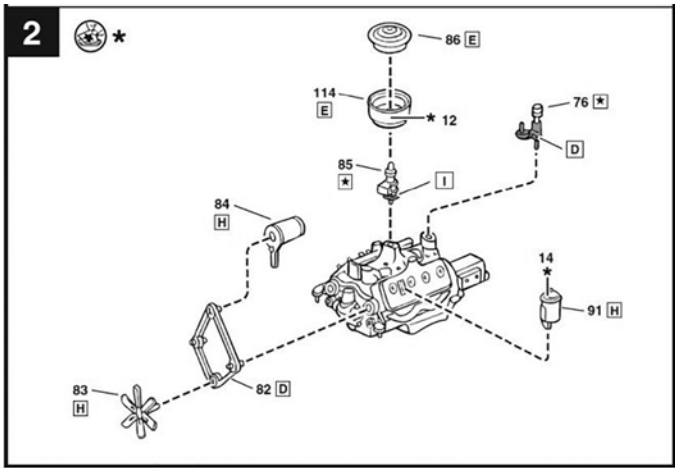

Figure 4. Structural Diagram (Revell)

Pictures

Pictures are important to model assembly instructions because they illustrate what the finished model looks like. A picture of the finished model always appears on the cover page of the model assembly instructions and as cover art on the box. Model builders who want to build their model as realistically as possible will refer to original photographs for inspiration.

Figure 5 shows an artist's conception of a model of a 1940 Ford Standard Coupe that appears on the box and in the assembly instructions.

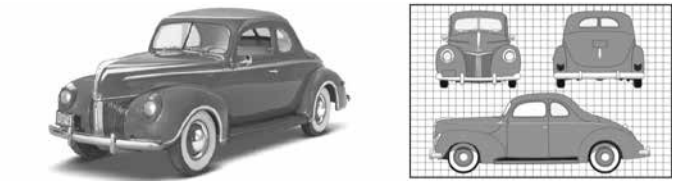

Figure 5. Artist's conception of a model of a 1940 Ford Standard Coupe (Monogram®)

Summary

I learned a lesson about information design from plastic model assembly instructions—the importance of minimalism. The most effective designs present instructions in a sequential order to show the assembly process, list tools and materials that are helpful to assemble the item, use pictographs to avoid repeating instructions, and use diagrams to show how parts fit together. What's missing from assembly instructions is a warning to be patient and to focus on working steadily and methodically, not fast. By focusing on the process (correctly going through the assembly steps) and not the end result (displaying the model), I am more likely to assemble the item successfully and efficiently. 1

Recommended Reading

To learn the process to create plastic model kits, see *www.revell.com/gallery/revell-vhs.swf?scale=noscale* (requires Adobe Flash).

For information about the research into designing assembly instructions, see Maneesh Agrawala et al., Designing Effective Step-By-Step Assembly Instructions, *http://graphics.stanford.edu/papers/assembly_instructions/assembly.pdf.*

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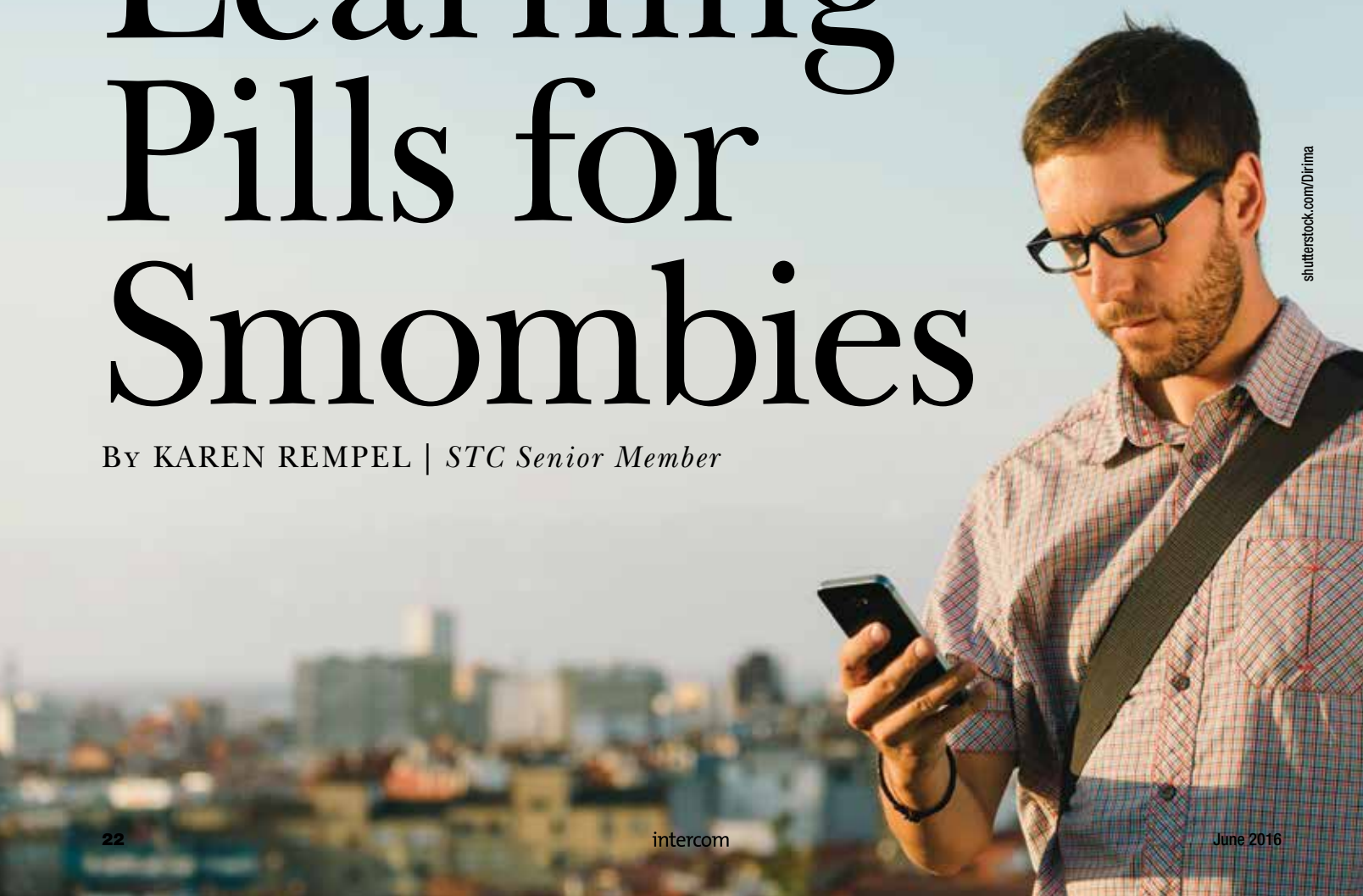
Instructional Design for Smartphones: Learning Pills for Smombies

By KAREN REMPEL | *STC Senior Member*



shutterstock.com/Dirima

THEY'RE UBIQUITOUS. People love their smartphones and the smombies are among us! You've seen them—people walking slowly, looking down at their phones, oblivious to their surroundings, possibly risking an accident—an increasingly common social phenomenon.

To smombies, the content on their phones seems more interesting than real life. I did a one-minute video of a New York subway platform (*https://youtu.be/I786T_3rRvc*), and almost everyone on the platform was looking at their phones while waiting for the train. The situation is becoming extreme. But I understand, because I'm addicted to my smartphone, too! It seems like fun, not work, to learn on a smartphone instead of a computer. So how can we use this technology to teach?

M-learning for the Workplace

This article focuses on the application of mobile learning, or "m-learning," to adult education, and specifically to workplace learning. The same design principles apply to other types of learning, but m-learning is uniquely suited to workforce learners. It allows people to use their phones to do short trainings wherever they are, whenever they have a free moment.

The connection between smartphones and video content

Pew Research states that 64% of American adults own a smartphone and 90% own a cell phone (2014). Tony Danova in *Business Insider* reports that about 50 million people in the United States now watch video on their mobile phones and 15% of all online video hours globally are viewed on tablets and smartphones (2014). These two trends go hand in hand, and, not surprisingly, video is an effective and popular method for delivering m-learning.

How m-learning differs from e-learning

E-learning arose in the 1990s with the proliferation of electronic technology, particularly computers. M-learning is the next generation of e-learning, delivered via smartphones and tablets. (While laptops are mobile, too, they aren't usually considered devices for m-learning.) M-learning is context-specific, immediate learning—available anywhere, anytime. It is more flexible and informal than e-learning, uses shorter training segments, and is designed for instant use. Having a positive user experience is an important aspect of m-learning, and learning by phone can be fun. However, m-learning providers have less control over training deployment and the learning situation.

How learning on a smartphone is different from a tablet

The smartphone is smaller than a tablet, with an average diagonal screen size of 4" to 6". You can hold it in your hand, and the way learners hold their phones is different than the way they hold and use their tablets. Typically, users sit back and relax when using a tablet—a "lean-back experience"—while phone users are busy, interrupted, active, and only have short snippets of time available—an "on-the-go" experience. According to Nicole Legault (2014), this means that tablets are more suited to immersive learning experiences, while smartphones are more suited to performance support.

This article focuses on instructional design for the smartphone, but many of the principles apply to designing m-learning for tablets as well.

Benefits of M-learning

M-learning immediately addresses learning needs

Conrad Gottfredson and Bob Mosher (2012) identified five moments of learning need:

1. When learning for the first time
2. When wanting to learn more
3. When trying to remember
4. When things change
5. When things go wrong

M-learning can be useful in any of these situations, but it is particularly suited to the latter three, which are situational (context-specific) and time-sensitive—people need the answers right away. As you've seen in many restaurant conversations, when people can't remember a fact, they turn to their phone to find the answer. So it is with m-learning. People stop arguing and pull out their phones to find your context-specific training to help with the problematic situation.

M-learning facilitates increased collaboration and learning success

The convenience of a small, portable device is obvious, and clearly a smartphone is less expensive than a PC or laptop. There are some surprising benefits as well. Sharing is virtually instantaneous among everyone using the same content, which leads to learners receiving instant feedback and tips. According to Michael Saylor (2012), this high level of learner interaction has increased exam scores from the 50th to the 70th percentile, and cut the dropout rate in technical fields by 22 percent. In the workplace, this same connection and collaboration translate into learning success on the job.

Limitations of M-learning

M-learning may not be the optimal solution for all your training needs. Tanya Elias and others have enumerated some of the drawbacks of m-learning (2011):

- Device variability
- Interruptions in internet access
- Slow download speed
- Small screen size
- Awkward text input (unless you're under 40 and have mobile thumbs!)
- Limited memory and battery life
- Data usage fees
- Security
- Work/life balance

You can alleviate some of these issues with your m-learning design. For example:

- Design for a screen size of 4" to 6"
- Minimize text input
- Keep file size small
- Allow users to download content onto their device for later viewing

Applications: Who Is Using M-learning?

Sysco delivery drivers use it anywhere

Sysco Canada deployed mobile training for delivery drivers, to standardize procedures and improve customer service. I helped Sysco develop a handbook of standard operating procedures (SOPs) for every aspect of the driver's shift, from pre-trip check-in to refrigeration requirements on the truck to customer interactions to unloading to post-trip check-in. Supervisors and managers ride with drivers during their onboarding period to provide on-the-job training. Sysco follows up with annual ride-alongs during which the supervisors and managers use an electronic scorecard to check off driver competency with each operating procedure. The company has achieved 96% compliance since this program was implemented in 2014.

Currently managers and supervisors use a tablet loaded with a PDF handbook of SOPs and digital scorecards. They upload training results from the tablet to a training portal on the corporate intranet.

Accenture executives use it anytime

According to Sarah Boehle (2009), Accenture was an early m-learning adopter, delivering training via Blackberry devices in a pilot project in 2007. Finding that busy executives didn't have open blocks in their schedule to sit down and focus on e-training, Accenture developed m-learning to bring its international executive team mobile compliance training on topics such as privacy, imports and exports, and financial regulations. M-learning allowed Accenture's 4,500 senior executives to complete required training using small segments of open time between meetings and while commuting. During the prototyping phase, 92% of surveyed executives said they would like to use their phone for training, and preferred downloadable training chunks ranging in length from 10 to 15 minutes.

Accenture delivers content via a proprietary smartphone app. Users only need to connect to the Internet twice: when they register and download the course, and once they pass the final quiz.

Methodology of Designing for Smartphones

The ARCS model—design to motivate learning

John Keller developed the ARCS model in 1987, and continues to teach and refine it (2013). ARCS is popular among m-learning authors and designers because it teaches how to motivate learners by satisfying their personal needs and returning a positive result from the learning activity. M-learning is all about engaging learners so they want to pick up their phone and take a training. They already love to use their smartphones, so we just need to nudge them to take the next step, which is to do a training and receive a reward (get the positive result).

Table 1 shows the ARCS model, consisting of four necessary conditions for motivating people to learn: Attention, Relevance, Confidence, and Satisfaction. The second row elaborates on aspects of the four conditions. The third row describes how to satisfy or generate these conditions with m-learning.

Plan your technology

Of course we want to design training content that our learners feel motivated to use. We also need to define and meet specific corporate goals and requirements. In addition, when designing for m-learning there are various technological factors to consider:

- Determine tracking requirements (for both technology usage and learning completion)
- Plan for disconnected mobile users
- Think about data usage for BYOD users (see below)—leverage Wi-Fi when possible
- Know the limitations and capabilities of the hardware and software technologies involved
- Determine the appropriate media types and file size for your content delivery (use guidelines from device manufacturers)
- Select content creation and delivery tools that use HTML5 (many devices do not support Flash)
- Make sure your m-learning materials work as needed on all mobile browsers

Designing for Millennials

Millennials, those born between the early 1980s and the early 2000s, now comprise the greatest percentage of the workforce (Pew Research, 2015). They have grown up with computers and cell phones. According to Victoria Deen McCrady, Millennials are a new breed of novice (2015). They like to figure it out themselves, are impatient, and want instant gratification. They look outside the app for help (to Google or YouTube videos). Here are some keys to designing for Millennials:

- Provide a Search box that uses common language and accommodates misspelling
- Give immediate feedback on usage
- Provide tips, tutorials, and wizards, and allow the user to turn these off easily
- Provide online video tutorials
- Avoid text-heavy content

Table 1. Applying the ARCS Model to ID for Smartphones

Attention	Relevance	Confidence	Satisfaction
Perceptual arousal—using surprise, novelty, or uncertain situations Inquiry arousal—offering challenging questions or problems to answer or solve Variability—using a variety of resources and methods of teaching	Goal orientation—how does the training help the learner meet a desired objective? Motive matching—is the training aligned with the learner's motives? Familiarity—using language and examples that learners are familiar with.	Learning requirements—overall course structure (how many components), amount of effort required, grading policy (if any) Success opportunities—describe specific methods to succeed and allow learners to estimate their probability of success Personal control—when and where to do the training, how long they spend on it; link success to their personal effort and ability	Intrinsic reinforcement—enjoyment of learning for its own sake Extrinsic rewards—external rewards such as money, praise, a positive performance evaluation Equity—are all learners treated equally, required to do the same training, eligible for the same rewards, evaluated the same way?
The design of the training itself will be new to begin with, including the organization of the chunks, color of the interface; later, the content itself may be the only novel aspect Design challenging learning tasks, while making them fun too Use a variety of content types—video, text, touch screen games, music	Job aids and just-in-time training modules satisfy the learner's needs Provide content that helps the learner succeed, for example, to deliver a presentation or sales pitch Design content learners need to do their jobs, using familiar mobile-device specific conventions and actions	Build on the learner's knowledge of how to use the device Provide content in small chunks so the learner can remember it Design training they can complete in a short amount of time Provide timely, relevant feedback (for example, quizzes that show they have learned) Send texts from the instructor with personal comments for less rote types of learning	Intrinsic satisfaction from using the phone and crossing off an item on the to-do list Extrinsic reward from completing work requirements Use properties of the phone (sound, vibration) to reward success Entertainment value of the training materials can provide an intrinsic reward Provide an opportunity to use the new skills as soon as possible

- If developing for iOS, make sure you meet Apple's requirements
- Don't ask more of this method than it can deliver—if you have a large amount of material to teach, consider a blended approach with both e-learning and m-learning components.

Evaluate your design

As with all instructional design, user testing is key. Enlist learners to evaluate your design using a variety of mobile devices and—unless you are designing for a specific device—ensure the delivery is platform-agnostic.

BYOD (Bring Your Own Device)

M-learning is more successful when learners use their own personal devices, with which they are familiar and feel personally connected. If you want to motivate learners, let them BYOD. Remember, it's all about creating a positive experience.

Design Elements for Smartphones

When designing your m-learning platform and content, keep the user interface clean, simple, and responsive (rotatable and resizable). Find an appealing way to organize your content given the small size of the screen, so that users see the relationships between different modules, chunks, or categories of training, and can easily find what they are looking for.

Top 10 Design Tips

1. Keep it simple (three tap max)
2. Design short, bite-sized learning pills, three to five minutes—one discrete learning objective at a time
3. Provide a search box that uses common language and accommodates misspelling
4. Use conventional navigation methods that are familiar to learners
5. Let people know up front how long a module will take to complete
6. Take advantage of touch screen capabilities (pinching, spreading, swiping, tapping)
7. Use HD HTML videos
8. Optimize quizzes for mobile devices (e.g., multiple choice with radio buttons)
9. Provide job aids for users to take away when learning is complete
10. Allow learners to pause or bookmark training and return to it later

Design for the device

- Design for the size of screen (4 x 6" diagonal). Use the simplest possible format.
- Tip: Use 3 x 5" index cards, or design a 3 x 5" table in Word for planning content to fit the mobile screen. Use short text and bullets.

- Don't use pop-ups; they can make navigation difficult on a smartphone.
- Design hyperlinks and buttons to be easy to press.
- Consider how your design looks and flows in both portrait and landscape orientations.
- Consider how usable your design is for learners who use two thumbs, one thumb, or a finger to touch the interface.

Take advantage of the unique features of smartphones

Smartphones have many features that distinguish them from tablets and desktop computers. Using some of these features to deliver m-learning content helps engage learners and make the learning experience more fun. Consider how these common smartphone features might enhance your learners' experience and help you achieve your training goals:

- Cameras that allow students to take photos and videos
- GPS
- Push technology (messaging, banners, and alerts)
- Haptics (the sense of touch, including the phone's vibrations and smooth surface)
- Accelerometer (motion and orientation detector).

To take advantage of the smartphone's unique features:

- Consider unconventional assignment options, for example using the smartphone's audio or video capabilities to interact with the external world.
- Provide opportunities for learners to illustrate and animate their courses.
- Create an interactive learning community where people can see what others have posted (mob-blogging).
- Leverage GPS to group learners' blogging activity according to their geographical locations, to localize and increase relevancy of information.
- Get creative and find fun ways to pull in learner-generated content (text messages, audio, pictures, video).
- Make boring content fun by making it interactive (e.g., by dragging words into different locations to demonstrate learning).
- Depending on your learner group and their affinity for text messaging, you can push reminders, quizzes, and questions to students. Generate discussion, invite feedback.

Design for the future

Remain aware of the key players in the mobile device market, and design to make the best possible use of screen real estate for each model.

Learning Objects: Content Types for Smartphones

The key to designing content for smartphones is to create small chunks of instructional content (known as *learning objects* or *learning pills*). Guidelines for training completion time vary, but Docebo reports that the best practice is 3 to 5 minutes (2014). Giving your learners a quick payoff will increase motivation for future learning.

Provide a variety of learning pills for learners to consume

Learning pills can be text-only, or incorporate these content types:

- Videos
- Podcasts—audio recordings of lectures (max. 10 minutes, shorter is better)
- Job aids and SOPs that learners can use while performing a task, for just-in-time learning
- Forms, checklists, and decision-support tools
- Social networking opportunities (e.g., Facebook page or blog with content and interactivity)
- Educational gaming and simulations
- Location-specific content (e.g., location of shut-off valves or alarm panels) that uses GPS and mapping
- E-books—textbooks, manuals, papers, reference guides
- Links to external content

Instructional Video Design Tips

- Include a title slide for orientation
- Use high resolution (1080P HD)
- Include still pictures—both iconic (resembling real objects) and analytic (symbolizing objects or states)
- Include short on-screen texts—labels, call-outs, short text slides
- Facilitate closed captions and subtitling—create your own or use YouTube's automated features
- Include background music
- Eliminate unpleasant background noise (electronic hums, static, and so on)
- Use a speaking rate of 180 words per minute (faster is more popular than slower)

Adapted from Petra ten Hove and Hans van der Meij's research (2015).

Learning object design tips

Consider these tips as you develop learning plans and content templates:

- Indicate the time required to complete each learning object
- Describe the learning objective at the beginning
- Include a quick knowledge check at the end
- Ensure each learning object relates to your overall learning plan

Content Creation Tools and Delivery Platforms

M-learning content creation tools and delivery platforms are available in every price range. See the Suggested Reading for a list of HTML5 authoring tools. Budget is always a consideration, but there are a number of cost-effec-

tive solutions for designing and delivering m-learning. You can use secure sites such as DropBox for file storage and sharing. You can develop and deliver your own private apps via URLs; you don't need to use the App Store or Google Play to deploy them. Or you can simply use a mobile site to deliver training. There are lots of great mobile-friendly WordPress themes with which you can develop a mobile site for your learners.

M-Learning Delivery Example

GCFlearnfree.org, accessible via browser on your smartphone, is a mobile-optimized site with dozens of tutorials about software applications, smartphone apps, and so on. Easy to use, the tutorials include video samples and demonstrate many of the features of ID for smartphones discussed in this article. Compare the site's design for desktops with their design for smartphones.

Conclusion

In the end, m-learning is about the experience, not the technology. If you create a positive m-learning experience, your learners will be motivated to eat your learning pills on the train, while standing on line, on their breaks, from 6 to 8 AM, at their desk, between meetings, and when they're stuck in waiting rooms. As long as we've got cell towers, smombies are here to stay. Let's give them something good to eat. Starting with an app that teaches them to look for oncoming traffic!

KAREN REMPEL (kyrempel@shaw.ca) *has been involved with STC since 1993 and served as Canada West Coast Chapter president for the 2008–2009 program year. A technical writing consultant for more than 20 years, she offers award-winning technical writing and editing services to an international clientele (see her top-ranking technical writing website,* www.karenrempel.com*). Visit her words and pictures blog at* www.bcwildernessvisions.com *and check out her YouTube video project Another New York Love Affair at* https://youtu.be/CHeH-3VVOAE.

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Wikipedia topics: Instructional design, M-learning, Mobile blogging, Smartphone, Smombie

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STC SUMMIT 2017

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TECHNICAL COMMUNICATION SUMMIT '17

STC's 64th Annual Conference

Society-Level Offices for 2017

BY BERNARD ASCHWANDEN | *Chair, Nominating Committee*

ARE YOU INTERESTED in becoming a candidate for elected office in 2017? Can you suggest, or do you know someone who would make a great contribution to the Society by being elected? Are you interested in learning more about a particular office? If so, the Nominating Committee would like to hear from you. Any member with at least one full year of membership is eligible to run.

This year, the Nominating Committee seeks candidates for the following positions:

- Vice President
- Treasurer
- Director (two positions)
- Nominating Committee Member (two positions)

The STC Board includes leaders with both business and academic backgrounds. All candidates should be experienced working at a strategic level, comfortable making decisions collaboratively and focused on outcomes. Previous Society-level leadership experience is not as important as having gained professional skills in managing people, projects and budgets. Serving on the STC Board is a chance to leverage these skills to lead a tax-exempt/nonprofit organization and to help ensure the Society continues providing members with an increasing quality of opportunities and services.

The Nominating Committee is responsible for selecting qualified candidates for Society office. All candidates must have extensive contacts across the Society. Serving on the Nominating Committee provides an opportunity to help shape the future of the Society by identifying leaders to run for elected office.

If you can rise to this challenge, fill out the online nomination form at *http://summit.stc.org/stc-officer-candidate-recommendation-form/*. A link to the form has also been posted at *www.stc.org/election*. You can also contact *stc@stc.org* or call +1 (703) 522-4114 and request that a candidate nomination form be mailed to you.

Use the same form if you want to recommend someone else for office. Submit one form for each person you want to recommend. The deadline for receipt of all forms is 31 July 2016.

Members who complete the nomination form (or who are recommended by others) do not automatically become candidates. Once the forms are received, the Nominating Committee contacts all prospects to confirm their interest. Once confirmed, interested prospects are asked to forward additional information, which the committee uses to determine candidacy.

A healthy Society leadership requires the talents of seasoned leaders with fresh perspectives. All interested members are therefore encouraged to complete and submit the nomination form by 31 July 2016.

Couldn't Attend the Summit? *Now You Can!*

THE 2016 TECHNICAL COMMUNICATION SUMMIT may have just ended, but you can still attend all the sessions—without traveling across the country or across the globe. The content of more than 40 sessions was captured (audio and visuals) and will be available shortly on the STC website (*www.stc.org*) through Summit Playback!

Summit Playback is a collection of session recordings that lets you "attend" the Summit from your home, office, or anywhere else. No matter the reason you didn't go, now the Summit can come to you. And those who *did* go to Anaheim will be able to view the sessions they missed or revisit the ones they attended to refresh their memory of the points made by the speakers. **STC's Summit is the only meeting in the technical communication field that offers this added bonus.**

Summit Playback is included in the full registration fee for attendees, who will receive a password to access the content when it's available (email *summit@stc.org* if you do not). Anyone who did not attend the Summit may purchase Summit Playback, which gives you access to every session recorded, any minute of the day, at any computer you want. It's all at your fingertips.

And you can go back to these sessions again and again! Your access to Summit Playback runs through 31 March 2017, and you can view as many sessions as you like, as many times as you desire. STC's 2016 Summit had five subject tracks, so there's something for everyone here, from the beginning technical communicator to the experienced manager.

Go to *www.stc.org* and look under the Education tab for Summit Playback to purchase. Take a "plane ride" to Anaheim, all from the comfort of your home or office!

International Summit Awards

EACH YEAR, the Society for Technical Communication sponsors international competitions through which technical communicators have the opportunity to receive recognition for their work. STC chapters hold preliminary competitions from which Excellence and Distinguished Award winners advance to the international level. Each entry is judged against criteria that measure the degree of technical content, achievement of purpose, and technical execution whether online or in printed deliverable. This year, there were 59 entries with 32 winners, or 54% receiving awards. Thanks to ISA Competition General Manager John Hedtke, ISA Competition Judging Manager Karen Rempel, and STC Office Competition Liaison Elaine Gilliam.

Competitions are open to technical communication professionals. You do not have to be a member of STC to participate. This year's winners are listed below:

Best of Show

Material Hoist Instructional Video

Entered by Brett Millar, Rebecca Firestone, and Benjamin Materna

Citation: This flawless video sets a new standard for communicating product knowledge, best practices, and safety. The pacing is superb, there's a Spanish subtitle track, and the video was shot in a single day. The video anticipates everything the watcher could want, from setting up and breaking down, effective safety procedures, and even how to load the hoist into the truck correctly.

Distinguished

Argonne Winter Footwear Safety Video

Entered by Diana Anderson, Jim Corsolini, and Dan Harris

Hypertherm HyPrecision 15/30/50 Waterjet Pump Operator Manual

Entered by K. Catten Ely

Johns Hopkins APL Technical Digest

Entered by Erin Richardson, Kelly Livieratos, Diane Dorsey, Ken Moscati, and Shannon Nelson

Virginia Tech Electrical and Computer Engineering Magazine

Entered by Eileen Baumann, Sara Gundersen, Kara Baumann, David Franusich, and Andrew Beaver

Award of Excellence

2014 Annual Report (Johns Hopkins APL)

Entered by Peggy Moore and Magda Saina

Legal Issues in Global Contexts: Perspectives on Technical Communication in an International Age

Entered by Kirk St.Amant, Martine Courant Rife, TyAnna Herrington, Wendy Kraglund-Gauthier, and David C. Young

Seven Years of Atidim & Ofakim Research Awards at Rambam Health Care Campus

Entered by Deborah E.-S. Hemstreet and M. Greenzweig

Stadium and Arena Design

Entered by John Pascoe, Peter Culley, Gavin Jamieson, Jo Squires, and Rebecca Taylor

SAS® Mobile BI: Accessibility Features for Users with Low Vision

Entered by Karen Mobley, Jesse Olley, Ed Summers, and Brad Kellam

Eaton ePDU G3 Documentation Suite

Entered by Toni Jones, Laura Caldwell, and J.B. Vialle

Enterprise Deployment Guide for Oracle WebCenter Content

Entered by Bonnie Vaughan and Lingaraj Nayak

HP ProBook 430 G3 Notebook PC – Maintenance and Service Guide

Entered by Sheri Ahlhardt, David Vasek, and Ken Rood

KitchenAid Spiralizer Attachment Print to Digital Initiative

Entered by Jane Lockhart, Kristin Toney, Terry Steven

Xprecia Stride User Guide

Entered by Michael Mai, Amelia D'Attilio, and Laura Tafuri

Award of Merit

2014 ALCF Annual Report

Entered by Renee Carlson and ALCF Communications Team

Adaptive Code via C#

Entered by Gary McLean Hall and Devon Musgrave

Exhaled Electronic Cigarette Emissions: What's Your Secondhand Exposure?

Entered by Joanne Studders, Alisa Clifford, and Sonja Douglas

Lignocellulosic Biomass for Advanced Biofuels and Bioproducts

Entered by Kris Christen, Judy Wyrick, Holly Haun, Betty Mansfield, and Marissa Mills

The Center for Nanoscale Materials at Argonne National Laboratory
Entered by Joseph Harmon, Michele Nelson, and Kathleen Carrado Gregar

Welcome to Argonne
Entered by Katherine Obmascik and Sana Sandler, Radiation Protection Program

Panther System Training Manual
Entered by Steve Janoff, Ray Pilla, Cynthia Kratz, Hologic Diagnostic Solutions Technical Writing, and Hologic Diagnostic Solutions Technical Training

TracVision TV-series Technical Training — E-learning Course
Entered by Mike Nelson

Multimedia Communication Services: Presentation to RTI's Executive Leadership Team
Entered by Benjamin Gil, Tayo Jolaoso, and Shari Lambert

SAS® Mobile BI 7.31 for iOS: Quick Tour of VoiceOver Support
Entered by Ed Summers, Jesse Olley, and Karen Mobley

CA Data Content Discovery for z/OS 1.0 Wiki
Entered by Kris Horgen and Jaysa Tammaro

CA Performance Management 2.6.0 Wiki
Entered by Anatoly Klebanov and Chazz Kellner

GE Power & Water: Waukesha Gas Engine Technical Publications website
Entered by Robert VanKammen and Joseph Terzeiva

Hamilton Beach Dual Breakfast Burrito Maker Use and Care Guide
Entered by Earl Peters, Jennifer Mitchell, and Chad Cole

Mobile Common Reference Data
Entered by Jennifer Hess

Nuix Developer Portal
Entered by Consuelo Del Palacio, Dana Feeney, Maria Verlengia, Martin Dyas, and Keerthi Padmanabhan

PROC TABULATE by Example, Second Edition
Entered by Brenna Leath, Lauren Lake, Julie McKnight, Kathy Restivo, and Denise Jones

Community of the Year

EACH YEAR, the Community Achievement Awards recognize a SIG, professional, or student chapter's outstanding accomplishments in achieving the Society's goals through a wide range of programs and activities. Previously, communities were awarded Community of Distinction, Excellence, and Merit in descending order of prestige; this year, the levels were updated to Platinum, Gold, Silver, and Bronze. The Community of the Year is chosen from among the Platinum Communities (previously Communities of Distinction) and announced at the STC Summit.

This year's Community of the Year is the Rochester Chapter. The citation reads: For your remarkable work in recognizing members through your various chapter-level awards, impressive blend of educational and social activities, and your extensive student outreach.

Congratulations to the Rochester Chapter and its members!

President's Award

THE PRESIDENT'S AWARD honors those who have made distinguished contributions to the profession of technical communication or the Society. The President's Award is awarded solely at the discretion of the President, who announces the names of the recipients during the opening session of the STC Summit. This year, Bernard Aschwanden, STC President, is pleased to announce that there are two honorees: Craig Baehr and Alan Houser.

Craig Baehr's citation reads:

For the generous commitment of your time and subject-matter expertise in the development of the Certified Professional Technical Communicator program, your ongoing role as Chief Examiner, and your service as Chair of the TC Body of Knowledge.

Alan Houser's citation reads:

For your ongoing and far-reaching work with STC locally, nationally, and internationally as Summit Conference Chair, President of the Board of Directors, Chair of the Nominating Committee, and for your countless interactions with members and community leaders providing wisdom, insight, and service.

Congratulations to Craig and Alan!

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STC

Leveraging Culture, National Identity, and Language:

An Interview with Dr. Nitish Singh

BY SCOTT ABEL | *STC Senior Member*

DR. NITISH SINGH is Associate Professor of International Business at the Boeing Institute of International Business at Saint Louis University. He serves as co-organizer for the Brand2Global Conference for Global Marketers and is the Program Leader for Certification in Global Digital Marketing and Localization. Dr. Singh holds a PhD in marketing and international business from Saint Louis University; an MA from the University of South Wales, UK; and an MBA from Pune University in India. His educational efforts and programs have been supported by the U.S. Department of Education, Qatar Foundation, Adobe, AT&T, Nestle, Purina, and other organizations. He has published more than 50 academic papers and 3 books.

In this edition of Meet the Change Agents, Scott Abel, The Content Wrangler, interviews Sr. Singh about culturally relevant content and its impact on trust, why transcreation isn't limited to multilingual content, and how understanding national and cultural identity can improve our ability to communicate across cultures.

Scott Abel: Thanks for agreeing to speak with us today, Nitish. For our readers who may be unfamiliar with you and your work, tell us a little about yourself and what you do for a living.

Nitish Singh: For the past 15 years or so, my professional life has been geared toward researching, teaching, and consulting in the area of global e-commerce and localization. I've published several books on these subjects, including: *Localization Strategies for Global e-Business* (Cambridge University Press) and *The Culturally Customized Website* (Routledge). I'm a tenured professor at The Boeing Institute of International Business of St. Louis University.

I am also actively engaged with the global marketing community and together with my mentor—Ulrich Henes—I co-organize a global marketing conference called Brand-2Global (*www.brand2global.com*). My most recent adventure has been putting together a broad collaboration of industry and academic experts in the global digital media space to help launch a new dual-certification course in *Global Digital Marketing and Localization*.

Finally, my passion in life is being mindful of all the joys and sorrows this interesting life journey brings.

SA: In our fast-changing, global, mobile, socially connected world, the skills technical communication professionals relied on in the past are often insufficient to help us tackle the challenges we face today. This is especially true when companies attempt to reach new consumers abroad. In your research, how do boundaries (political, cultural, geographical, religious, or otherwise) affect our ability to communicate to others around the globe?

In the digital age, change happens quickly. This column features interviews with the movers and shakers—the folks behind new ideas, standards, methods, products, and amazing technologies that are changing the way we live and interact in our modern world. Got questions, suggestions, or feedback? Email them to *scottabel@mac.com*.

NS: Cultural theorist Edward Hall has emphasized that all communication happens through the

medium of culture. For example, a cursory look at global websites may reveal they all pretty much utilize the same general structure and layout. In fact, many companies just take their local site and translate it to connect with foreign markets. But if you take a closer look at successful global websites, you will find they are populated with socio-cultural values and markers.

Over the past 15 years, I have researched websites from more than 15 countries and found that websites mirror local cultural values. The same is true for advertising and almost any marketing communications. For example, check out how different Japanese websites and communications are in terms of colors, values, icons and imagery compared to U.S. websites. In my book, *The Culturally Customized Website,* I provide specific examples of how websites from different countries differ culturally, not just linguistically.

The challenge for the technical communication professionals is to both learn technical communication skills and also have broad cultural knowledge of how culture is perceived at a subliminal level, at a behavioral level, and at a symbolic level. The tech comm professionals of tomorrow need interdisciplinary skills that combine the fields of technical communication, cross-cultural communications, digital marketing, and international business—with a heavy dose of empathy-orientation (which is crucial for just about any person to truly connect with another human being).

SA: There's a lot of jargon associated with the work you do. Can you help our readers understand the difference between *translation* and *localization?*

NS: Localization is the process of adapting products and services (e.g., websites, manuals, and software applications) to the linguistic, cultural, technical, functional, and other locale-specific requirements of the target market. Whereas translation is just the linguistic aspect of localization. The goal of translation is to achieve meaning equivalence by ensuring idiomatic, vocabulary, and conceptual equivalence.

SA: In your online lectures, you provide some excellent guidance on localization strategy. One of the most interesting topics you address is the question of whether to standardize or to localize content. Can you explain the difference to our readers and help them understand which one might be the better choice (assuming there is a better choice)?

NS: A simple and safe answer is that whenever we are trying to connect with other locales, it is important to understand their expectations and present the content accordingly. On one hand, globalization and technology has led to the homogenization of some aspects of global culture; but on the other hand, we see strong forces of creolization demanding marketers pay attention to local norms and needs. Perhaps, one way to handle the standardization versus localization issue is to see to what extent the end user utilizes the products and services for self-expression. The higher the degree of self-expression associated with a product, the more localization the product will need—especially cultural customization. For example, products like food, cosmetics, and clothing are very much culturally determined. While we may think people buy Levis denim jeans for the Americana image, jeans are sold in local markets and should meet the needs of local body and figure types.

SA: Choosing the right strategic approach is dependent on a variety of factors, the most important of which seems to be creating engaging content that resonates with your target audience. Effective communication relies on many techniques, most of which writers learn in school. But one important factor you discuss often is the importance of creating content that your audience can trust. How big a role does trust play when communicating cross-culturally?

NS: Let me answer this question from the aspect of online trust. Past research has shown that online trust is one of the major determinants of successful conduction of e-commerce. People do business with those that they like, know, and trust. Without trust, e-commerce cannot reach its full potential. In fact, many past studies have shown that online trust tends to reduce the perceived online risk for consumers, which leads to a more favorable attitude toward the site and encourages online activity.

In the global context, engendering online trust is even more important for domestic e-commerce, since the commonly associated sources of trust, such as prior knowledge of the merchant, familiarity with the business, and social and legal structures, are missing. Your international clients may not know your brand or may see you as a foreign company without in-country support. They may even have consumer ethnocentric feelings. However, many e-businesses have not achieved enough familiarity to generate trust. Even big multinationals are sometimes seen with skepticism when marketing in foreign markets. For example, Coca-Cola and Pepsi got a tarnished image in India when traces of pesticides were found in their cola; this violated Indian consumers' trust. As a result, Coke acted immediately with "safety guaranteed" stickers, newspaper ads, public tours of Coca-Cola plants in an attempt at regaining lost trust.

SA: I have on my desk a copy of *The Little Book of Transcreation* by Humphrey, Somers, Bradley, and Gilpin. It's one of my go-to sources for addressing challenges when attempting to translate creative content. Can you help our readers understand what *transcreation* is and why they might need to employ the approach?

NS: Transcreation is all about taking our blinders off, or what we call the "self-reference criteria," to truly and empathetically understand the target audience in order to create effective translations that can really hit the sweet spot. But I see transcreation as just one aspect of localization. An example of how this may work: The "Indianization" of Spiderman is a good example of how global brands can be imbued with local meaning and marketed and integrated in the local psyche. In the Indian adaptation, Pavitr Prabhakar (a phonetic distortion of Peter Parker) roams the streets of Bombay (Mumbai) instead of Manhattan. Indian culture is very eclectic in terms of the numerous forms of gods that are worshipped and Spiderman is even being integrated with Indian myths and religion. During one religious celebration there were reports and blog posts of Indians celebrating and worshiping "Spider-man-Ganesh," in which Spiderman is infused into Lord Ganesh, the Indian god of good luck and prosperity.

SA: Cross-cultural communication often gets lumped in with translation or multilingual communication. But, cross-cultural communication challenges aren't limited to multilingual communication situations. Cross-cultural content customization challenges can exist in our own cultures, amongst people who speak the same language as we do. Can you point to an example and explore how transcreation could have a positive impact?

NS: Take for example, the U.S. Hispanic culture, which is a major sub-culture in America that has its own unique cultural aspects. In fact, past studies have shown that Hispanics selectively adapt and create a positive relationship with the majority American culture, while being strongly rooted in their unique ethnic identity. Online, many Hispanics prefer Spanish content—or both Spanish and English content.

In a previous research study I conducted in 2008, a Hispanic focus group participant stated: "You really need to show me that you understand our culture because if you have a website in Spanish but at the same time Hispanics see that it does not say or it does not have knowledge of our culture, then we will reject such a site." With the growing Hispanic market, I would say several U.S. marketers have been transcreating content for Hispanic culture, and this has helped those companies to strike a chord with Hispanic consumers.

SA: Marketers and technical communicators are starting to find ways to work together, but they seldom use the same approaches. Take, for example, personas. Marketers tend to arrange people into persona groups based on commonly shared characteristics. Theoretically, this is supposed to improve their ability to target people in these groups with the right content. But, when you add culture, language, and other factors to the mix, it becomes clear that this may not be the best approach. Can you talk to us about Geert Hofstede's Six Dimensions of National Culture and why leveraging them might prove a useful strategy for technical communicators?

NS: I think the most important thing for marketers, technical writers, and other communicators, is to deeply understand prospective customers. First, run a survey to determine where your target prospects fall on the continuum of global and national/cultural identity. I have devised a tool that allows companies to identify the global and national identities of their prospects. Once you understand these dimensions, you can effectively optimize your localization and marketing budgets. If the majority of your prospects are extremely global minded, then there may not be much need to employ a heavily localized strategy.

On the other hand, if your prospects are really high on national identity then it may become imperative to pay special attention to a higher degree of localization. Once this is determined, you can deal with how to leverage cultural dimensions of Hofstede or someone else.

My approach is to look at a culture holistically. Most of Hofstede's dimensions only touch on behavioral aspects of culture, but there are also perceptual and symbolic aspects of culture that cannot be ignored … this can be a long discussion, so I better stop now.

SA: Learning about localization can be challenging for working professionals. Can you recommend any resources to help our readers get started?

NS: The Localization Institute (*www.localizationinstitute.com*) is great for professional development—both for the project management certifications and the new Global Digital Marketing and Localization certificate program that I developed. They also host roundtables and workshops for localization project managers.

Conferences to network and learn new technologies and skills include Localization World (*www.locworld.com*) held in North America, Europe, and Asia ever year, and Brand2Global (*www.brand2global.com*).

Multilingual Magazine (*www.multilingual.com*) has great vendor assistance resources as well as excellent articles covering relevant topics and trends.

Association-wise, check out the Globalization and Localization Association (*www.gala-global.org*) and the folks at Common Sense Advisory (*www.commonsenseadvisory.com*) are other good resources.

And lastly, shameless self-plug here for my books: *Localization Strategies for Global e-Business* and *The Culturally Customized Website.*

SA: Thanks for sharing your knowledge with our readers. I really appreciate your time and value your expertise.

NS: Thanks, Scott. I enjoyed participating and look forward to reading the interview.

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Getting Ahead in Your Career

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BY KIT BROWN-HOEKSTRA | *STC Fellow* and **CINDY CURRIE** | *STC Fellow*

Dear TC Manager:
I've been asked to present to management about our projects. I've never done anything like this before! Help! How do I structure the presentation, and what should I focus on?
—Newbie Presenter

Dear Newbie Presenter:
The first thing to do is find out if your group or company has a standard template for this type of presentation. Most companies have these templates, and it will be your guide and structure for the content you need to provide. If a template does not exist, spend some time with the person who made the request and find out where they think you should focus.

Clearly identify the audience and purpose for the presentation. Are you presenting to your group, another group, supervisors and managers, or executive-level leaders? Their interests will be very different. Is this a status update presentation or something else, like a project methodology overview where you may need to discuss processes and tools?

Are they expecting cost estimates, metrics, or return-on-investment information? If so, you might need to do some research to make sure you have the most current data. Also, find out if this is a one-off request or something that you or others in your group will need to do regularly.

Dear TC Manager:
I have consistently gone above and beyond what's asked of me, but have been overlooked for raises and promotions. How can I talk to my manager about this?
—Overlooked

Dear Overlooked:
I presume there is a formal performance review process in your company, and I recommend that you use that process, including setting performance goals against which you are measured, as the basis for a discussion with your manager.

Before meeting with your manager about this, make sure you do some research.

Be aware of the job description for your current role, and ask to see the job descriptions for the roles one and two levels higher than your current role, if these are not something you can access without assistance.

Ask for the salary ranges for each role as well. (This may be more difficult to gain access to, but you should be able to see your current salary range and very likely the range for one level above your current role.)

Compare the list of responsibilities of your current role to those of the role one level higher. Document how you think you are fulfilling the responsibilities now.

Read the annual report, and if your company is public, check the quarterly analyst reports. If your company's stock price has tanked in the past quarter, now is not the time to ask for a raise. Alternatively, if you have

Ask a Tech Comm Manager is an advice column geared toward answering all those questions you have, but might be uncomfortable asking. We glean the questions from social media, forums, and most importantly, from you, dear reader. If we don't know an answer, we will interview experts and get information for you. Send us your questions to *kitbh.stc@gmail.com* or tweet them to *@kitcomgenesis* or the hashtag *#askTCmgr*.

contributed to a project that was a big win or stock prices are doing well, you will have better luck.

Identify nonmonetary things that you would be willing to receive instead of a raise. Managers often have more flexibility on things like vacation time, conferences or training, professional association dues, etc. than they do on raises.

You're starting to build your business case for getting promoted. Be sure to use solid examples of your work that demonstrate your expertise and leadership. Once you've done this, set a meeting with your manager and start the discussion. Don't complain about the past; it's over.

Work with your manager to set your course for the future. Be clear that you want to advance to higher levels of responsibility and accountability and that you want to understand how to get there. Then ask for stretch goals that will move you forward as you achieve them, with regular checkpoints on progress.

Also ask about the criteria for raises in your company. Some companies use an annual bonus program as a way to compensate their employees and don't give raises at all.

Dear TC Manager:
I just got offered a new job and am in the process of negotiating the package. I want them to cover my STC and other professional memberships. How do I negotiate this?
—Active STC member

Dear Active STC Member:
Everyone wants to know what's in it for them, so frame your request by clearly identifying how your memberships in STC and other organizations will benefit your new company and make you a better employee. Be sure to use several good examples of how these memberships have provided benefit in the past. It's always good to show that you are strongly motivated to bring your best to your job, and that includes self-directed learning, networking, and participation in professional organizations so that you can keep current, continue learning, and contribute to your profession beyond your immediate job.

If you will be working with a team of more than five technical communicators, consider telling your manager about the Corporate Value Program, which allows larger organizations to provide discounted memberships to their employees, and look into STC's certification program, which can boost your credentials. Information on both programs can be found online at *www.stc.org*.

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"After I got laid off last year, I decided to increase my skill set. I had already been studying DITA and content management strategy since the 2013 Summit, but now I concentrated on it. I watched every free, on-demand, archived seminar that STC offered on the topics, which gave me a solid foundation in which I could build my knowledge. Because of this I knew the right questions to ask in interviews and landed a great job."
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1 15–18 June
The 2016 **American Society for Indexing** (ASI) Annual Conference will take place at the Conference Chicago University Center in Chicago, IL.
ASI
+1 (480) 245-6750
info@asindexing.org
www.asindexing.org/conference-2016/

2 19–23 Sept
The **Human Factors and Ergonomics Society** will hold its Annual Meeting 19-23 September at the Washington Hilton, Washington, DC.
HFES
https://hfes.org/web/HFESMeetings/2016annual-meeting.html

3 2–5 Oct
The **IEEE Professional Communication Society** will hold its annual conference, ProComm 2016, 2-5 October at the University of Texas, Austin, TX.
IEEE Professional Communication Society
http://sites.ieee.org/pcs/future-locations/

4 5–8 Oct
The **American Medical Writers Association** (AMWA) will hold its annual Medical Writing & Communication Conference, 5-8 October at the Sheraton Denver Downtown Hotel, Denver, CO.
AMWA
www.amwa.org/content.asp?contentid=74
+1-240-238-0940

5 6–8 Oct
The **Council for Programs in Technical and Scientific Communication** (CPTSC) will hold its annual meeting 6–8 October at the Georgia Conference Center in Savannah, GA.
CPTSC
www.cptsc.org

6 23–25 Oct
The **Public Relations Society of America** (PRSA) will hold its 2016 International Conference, 23-25 October at the JW Mariott in Indianapolis, IN.
PRSA
https://www.prsa.org/Conferences/International-Conference/index.html

7 2–5 Nov
The **American Translators Association** (ATA) will hold its 57th Annual Conference, 2-5 November, at the Hyatt Regency in San Francisco, CA.
ATA
www.atanet.org/conf/2016/
+1-703-683-6100
ata@atanet.org

* STC-related event

Welcome to My Website, Said the Writer to the *

BY KAREN REMPEL | *STC Senior Member*

I HAVE BEEN a technical writing consultant for over 20 years, and I'd like to share some of my adventures in owning an exceptionally high-ranking technical writing website.

I was unenthusiastic about creating my first website, but in 2008 a friend urged me to create a blog to establish my expertise in ecopsychology. I had recently completed a Master's degree at Naropa University and wanted to build a wilderness retreat center in British Columbia. My dream was to share my love of nature with others and guide people to deepen their connection to the natural world. My friend assured me that people would be coming to my retreat center in busloads if I developed the blog, and that I would become a sought-after expert in ecopsychology. Ha! I have to laugh now at the way things turned out.

But I took his word for it, and wrote content for about ten blog entries and six webpages. My friend set up Web hosting for me and built a WordPress site using the content I developed. BC Wilderness Visions was born (*www.bcwildernessvisions.com*—note the monthly entries dating all the way back to July 2008!) I sold the retreat center a few years ago, and the website has morphed many times since its inception.

At the same time, I bought the domain name *karenrempel.com*. Once BC Wilderness Visions was up and running, I decided to set up a technical writing website for my namesake domain. I copied much of the structural work from the other website, but developed unique content. I launched the site in June 2009, and the world began to beat a path to my door. Not my retreat center door, but my technical writing door.

I followed best practices to get good Google, and soon I was getting so many requests for information interviews from aspiring writers that I had to find a way to channel the flow of seekers in another direction. Thus, in 2011, I developed an *Information Interview Service* for the Canada West Coast Chapter. I wrote about the mentorship lite service—which pairs new writers with senior technical writers in our community—in *Intercom*, and the idea was picked up by the New York Metro Chapter, who implemented their *Talk to a Professional Service*. Both our chapters won Pacesetter awards for these services. After reading my article, the STC Chicago Chapter implemented a similar service, their *Get Real! Professional Interview Program*.

As much as I liked talking to aspiring writers, the point of my site was to attract clients, and the site succeeded here as well. My aim was to have one of the high-ranking sites for the Vancouver area, but I exceeded this goal beyond my wildest dreams. I regularly receive calls from potential clients throughout North America, and even from clients in Europe, the Middle East, and Australia. I'm currently working for clients in Germany, Chile, and Haiti, as well as Vancouver.

People sometimes ask whether having a website pays off. Absolutely! My website brings me more work than I can handle. Of course, to achieve this result a website needs to be well-designed, with rich content, and well-organized so that people can find the key information they are looking for. My website presents my expertise and services in such a way that people have confidence in my abilities and want to work with me. Since 2010, most of my new clients have found me through my website. This is astonishing to me! In fact, as with the interview seekers, I needed to develop a system for directing the overflow of work that I can't handle. I have a standard-form email that I use to refer employers to the STC Canada West Coast job bank, and I have one or two friends that I refer work to if it seems like a good match for their skillset.

I love the feeling of anticipation when I get a call from a potential client. It's similar to a blind date. We've never met, we're feeling each other out to find out if it's a good fit. I have to decide whether it seems worthwhile to invest time in continuing the conversation, or if the person seems like a nut. I remember getting a call from a new client when I was on vacation in California. I was sitting on a picnic table, in a grassy courtyard, and the client was telling me he needed someone to collaborate with a team of managers across Canada to write a training manual for delivery drivers. It was surreal! But this turned out to be Sysco Canada, one of my regular clients. So with each phone call, there is the excitement of meeting someone new, trying to woo or be wooed, never knowing how far along life's path we might go together. I never know who's going to wander into my web.

*With the Web, you never know who you'll get, but it's fun to find out. How would you fill in the blank?

KAREN REMPEL (kyrempel@shaw.ca) *has been involved with the STC Canada West Coast Chapter since 1996 and served as its president for the 2008–2009 program year. A technical writing consultant for more than 20 years, she offers award-winning technical writing and editing services to an international clientele (see her top-ranking technical writing website,* www.karenrempel.com*). She is a judge for the International Summit Awards 2016.*

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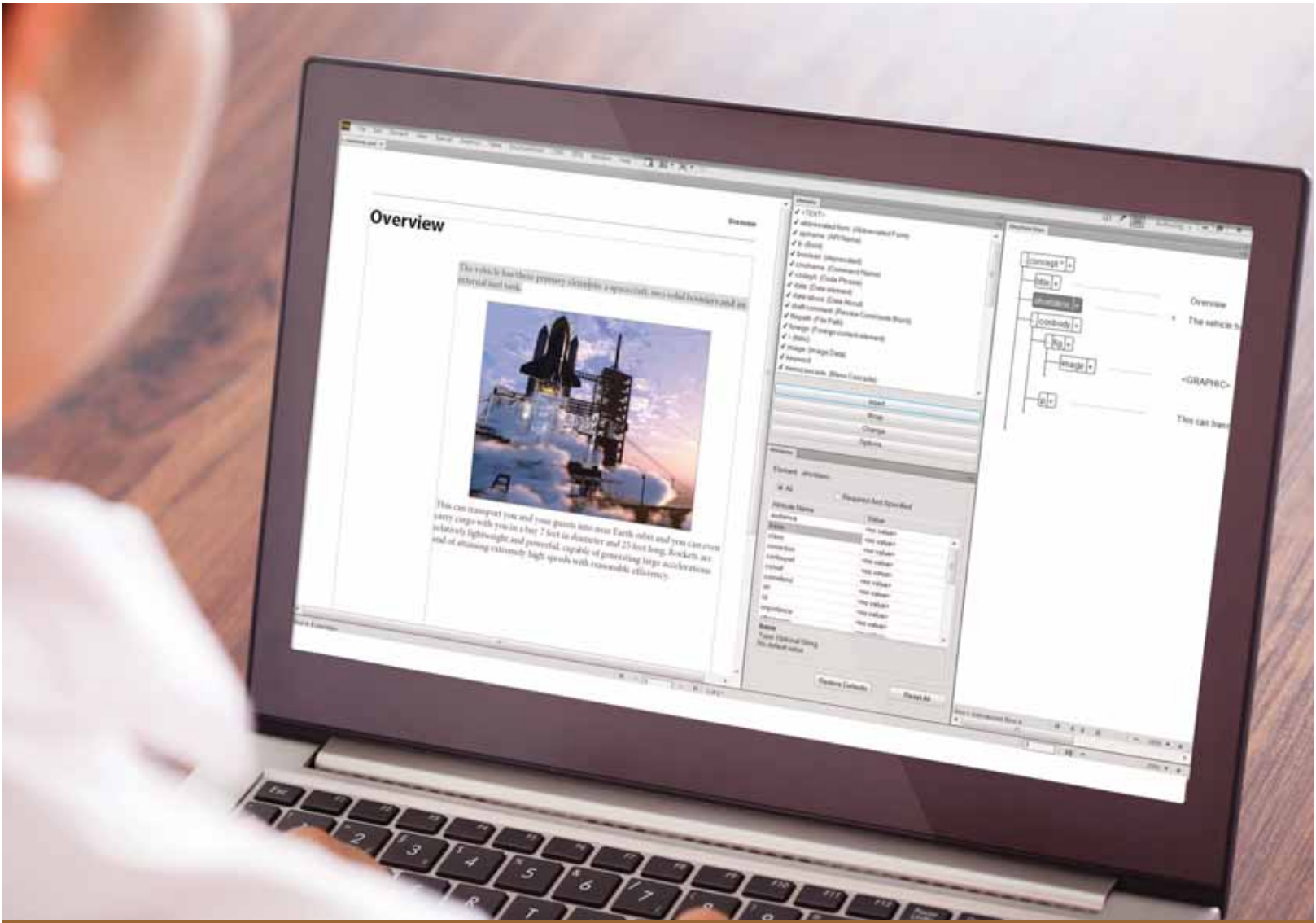

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